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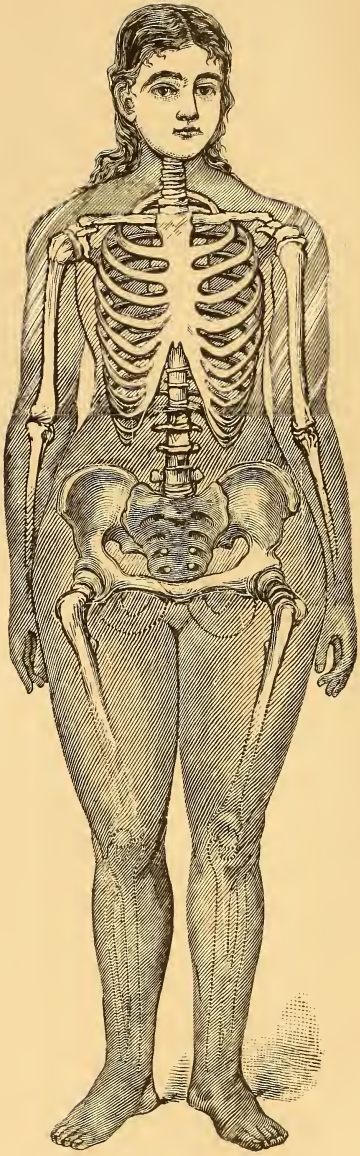

FEMALE PELVIS.

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TREATISE

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ON THE

MEDICAL AND SURGICAL

DISEASES OF WOMEN,

WITH THEIR

HOMŒOPATHIC TREATMENT.

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Fully Illustrated.

BY

MORTON MONROE EATON, M. D.,
CINCINNATI, OHIO.

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PREFACE.

In conformity to custom, the Author presents some of the reasons which have induced him to present this work to the homœopathic medical profession.

First. Because he has been for several years repeatedly urged to do so, by prominent homœopathic physicians of several States, including representative men in the cities of Chicago, St. Louis, New Orleans, Boston, Louisville and Cincinnati.

Secondly. Because homœopathic colleges have been obliged to recommend, and homœopathic physicians and students have been obliged to provide themselves with, allopathic works upon these diseases; thereby giving a certain amount of sanction to the treatment therein advocated, and causing the use (among otherwise good homœopathic physicians) of caustics, scarifications, etc., applied to the uterus, to become so common among them as to bring a blush of shame to the face of the true homœopath. In the use of pessaries and drugs, the homœopathic profession have also inadvertently been following, in part, their old-school brethren's treatment; because they largely have been obliged to

study the description, etiology, diagnosis, pathology, and prognosis of these diseases from their books. The homœopathic books which we have had upon the diseases of women, though written by gentlemen of high standing, do not seem to meet all the requirements of the profession, though excellent, so far as they go.

Thirdly. Because it seems time that homœopathists should have complete text books on all branches of medical education; the large increase in the number of homœopathic physicians from year to year justifying the expectation, that erelong we may rival the old school in numbers, as we now do in the intelligence and wealth of our patrons.

Fourthly. Because the homœopathic physicians of Illinois and Ohio, in their State societies, and of the North-west, in the Western Academy, have honored him with their confidence, and shown their respect by giving him prominence in regard to these diseases, and because he has had a large experience in their treatment for over twenty years, in hospital and private practice (allopathic and homœopathic).

He has endeavored to make this work as complete as possible. How far he has succeeded, the profession must judge. He believes the works upon the diseases of women, by Thomas and Emmet, of the old school, are ordinarily considered complete; but he finds that Prof. Thomas* omits in his index, Lacerations of the Cervix Uteri; and Prof. Emmet† omits Areolar hyperplasia of the uterus, Hydatids of the uterus, Rectocele, Sterility, Inflammation of the uterus, in all forms, except as he refers to congestive hypertrophy, Abortion, Pudendal hemorrhage and Pudendal hæmatocele. And

*Thomas' Diseases of Women. †Emmet's Prin. and Prac. of Gyn.

both Profs. Thomas and Emmet omit Hysteralgia, Puerperal fever, Puerperal phlebitis, Mammary Abscess, Cervicitis, Sympathetic Affections, and Nymphomania, as well as Puerperal mania. He is hopeful that this work will not be found less complete.

Neither Dawson's improved Sims' speculum nor Wocher's bi-valve speculum are mentioned in either of these works, or those of any other author on Diseases of Women (so far as he is aware), and they need but to be seen to be appreciated as decided improvements. Cutler's suture cutter and forceps, his own improvement of the London Abdominal Supporter, his needle holder, and wire holder and twister, for vaginal fistulæ, have not heretofore been presented to the profession.

He has spared no pains or expense to have his illustrations perfect and complete. In this he is greatly indebted to Mr. John H. Bogart, designer and engraver, of this city. He has not attempted to make a Materia Medica, but has named such remedies as he has found beneficial, and given the prominent homœopathic indications for their use in each disease, gleaning somewhat from other authors, as well as his own experience.

The Author, in conclusion, would express his thanks to Drs. S. R. Beckwith, of Cincinnati; W. H. Hunt, of Covington, Ky.; M. B. Pearman, of St. Louis; T. P. Wilson, of Ann Arbor, and others, for valuable suggestions.

Respectfully,

M. M. EATON.

CINCINNATI, O.,
U. S. A.

TABLE OF CONTENTS.

CHAPTER I.

PAGE.

INTRODUCTION, ... 17

CHAPTER II.

GENERAL DIAGNOSIS, ... 21

CHAPTER III.

NORMAL MENSTRUATION, AND AMENORRHŒA, ... 31

CHAPTER IV.

MENORRHAGIA AND METRORRHAGIA, ... 41

CHAPTER V.

DYSMENORRHŒA, OR PAINFUL MENSTRUATION, ... 46

CHAPTER VI.

VICARIOUS MENSTRUATION, ... 56

CHAPTER VII.

INFLAMMATION OF THE FEMALE GENITALIA, ... 60

CHAPTER VIII.

METRITIS, ... 77

CHAPTER IX.

AREOLAR HYPERPLASIA OF THE UTERUS; OR, CHRONIC PARENCHYMATOUS METRITIS, ... 87

CHAPTER X.

PAGE.
PERI-METRITIS—PELVIC CELLULITIS—PELVIC ABSCESS, ... 110

CHAPTER XI.

CHILD-BED FEVER — PUERPERAL PERITONITIS, PUERPERAL METRITIS, METRO-PHLEBITIS, AND PERITONITIS, ... 126

CHAPTER XII.

HOMŒOPATHIC REMEDIES, ... 137

CHAPTER XIII.

INSTRUMENTS, ... 142

CHAPTER XIV.

INDURATION AND HYPERTROPHY OF THE CERVIX UTERI—VAGINISMUS AND DYSPAREUNIA, ... 162

CHAPTER XV.

ULCERATION OF THE OS UTERI, ... 179

CHAPTER XVI.

VAGINITIS—ADHESIONS IN THE VAGINA FROM INFLAMMATION—DIPHTHERITIC INFLAMMATION OF THE VAGINA—PERI-VAGINITIS PHLEGMONOSA DISSECANS, ... 186

CHAPTER XVII.

IMPERFORATE HYMEN—ATRESIA OF THE HYMEN (CONGENITAL AND ACQUIRED)—HÆMATOMETRA, ETC., ... 197

CHAPTER XVIII.

UTERINE HEMORRHAGE, ... 201

CHAPTER XIX.

CERVICITIS AND ENDO-CERVICITIS, OR CATARRH OF THE CERVIX, . 211

CHAPTER XX.

ENDO-METRITIS, ... 218

CHAPTER XXI.

LEUCORRHŒA—WHITES, ... 240

CHAPTER XXII.

PAGE.

BARRENNESS AND STERILITY, ... 249

CHAPTER XXIII.

DISEASES OF THE OVARIES, ... 265

CHAPTER XXIV.

OVARIAN TUMORS, ... 275

CHAPTER XXV.

OVARIOTOMY, ... 312

CHAPTER XXVI.

UTERINE FIBROMA—MYOMA—FIBROUS TUMORS OF THE UTERUS, . 342

CHAPTER XXVII.

UTERINE POLYPI — VEGETATIONS OF THE ENDOMETRIUM — UTERINE HYDATIDS — VASCULAR POLYPI — PLACENTAL AND GRANULAR POLYPI, ETC., ... 352

CHAPTER XXVIII.

MOLES IN THE UTERUS, ... 375

CHAPTER XXIX.

CATARRH OF THE UTERUS AND VAGINA, ... 380

CHAPTER XXX.

HERNIA OF THE OVARY—HERNIA OF THE UTERUS, OR HYSTEROCELE, 385

CHAPTER XXXI.

PROLAPSE OF THE VAGINA, CYSTOCELE, RECTOCELE, ENTEROCELE, AND OVARIOCELE, ... 389

CHAPTER XXXII.

PAPILLARY TUMORS OF THE UTERUS AND OVARIES, AND COCCYGODYNIA, 395

CHAPTER XXXIII.

CANCER AND CAULIFLOWER EXCRESCENCE OF THE UTERUS — CARCINOMA, SARCOMA, ETC., ... 400

CHAPTER XXXIV.

FEMORAL HERNIA, INGUINAL HERNIA, LABIAL HERNIA, VAGINAL HERNIA, AND HYDROCELE, ... 404

CHAPTER XXXV.

PAGE.

HYDROMETRA—PRURITUS VULVÆ—ABSCESS OF THE LABIA—CYSTS OF THE VAGINA—FIBROIDS OF THE VAGINA—POLYPI OF THE VAGINA—PROLAPSE OF THE OVARIES, ... 406

CHAPTER XXXVI.

ABORTION, ... 421

CHAPTER XXXVII.

CYSTS OF THE BROAD LIGAMENT AND DISEASES OF THE FALLOPIAN TUBES, ... 437

CHAPTER XXXVIII.

DISEASES OF THE URETHRA—URETHRITIS, CARUNCLES OF THE URETHRA, IRRITABLE URETHRAL CARUNCULÆ, ULCERATION, FISSURES OF THE NECK OF THE BLADDER, OR MEATUS URINARIUS INTERNUS, LACERATIONS OF THE URETHRA FROM DILATATION, PROLAPSE OF THE URETHRA, URETHRAL POLYPI, ETC., ... 445

CHAPTER XXXIX.

TUBERCULOSIS OF THE VAGINA—STENOSIS OF THE UTERUS, . . . 451

CHAPTER XL.

CYSTITIS IN WOMEN, ... 455

CHAPTER XLI.

STONE IN THE BLADDER AND URETERS, ... 462

CHAPTER XLII.

SYMPATHETIC EFFECTS OF DISEASES OF THE UTERUS AND ITS APPENDAGES, ... 472

CHAPTER XLIII.

PUDENDAL HEMORRHAGE—PUDENDAL HÆMATOCELE—THROMBUS—RUPTURE OF THE BULBS OF THE VESTIBULE, ... 490

CHAPTER XLIV.

PUBERTY—AND THE CLIMACTERIC PERIOD, ... 494

CHAPTER XLV.

ATRESIA OF THE VAGINA, AND CERVIX UTERI—HÆMATOMETRA, ETC., 502

CHAPTER XLVI.

PAGE.

FISTULÆ—VESICO-VAGINAL FISTULA—RECTO-VAGINAL FISTULA—RECTO-VESICAL FISTULA—VESICO-CERVICAL FISTULA—URETHRO-VAGINAL FISTULA—INTESTINO-VAGINAL FISTULA—URETO-VAGINAL FISTULA—VESICO-UTERINE FISTULA—PERITONEO-VAGINAL FISTULA—PERINEO-VAGINAL FISTULA—BLIND VAGINAL FISTULA—FISTULA IN ANO, . 511

CHAPTER XLVII.

LACERATIONS OF THE CERVIX UTERI, ... 539

CHAPTER XLVIII.

DISPLACEMENTS OF THE UTERUS, ... 552

CHAPTER XLIX.

DIFFERENT FORMS OF DISPLACEMENTS OF THE UTERUS—INVERSION OF THE UTERUS, ... 563

CHAPTER L.

RETRO-VERSION AND RETRO-FLEXION OF THE UTERUS, ... 578

CHAPTER LI.

ANTE-VERSION AND ANTE-FLEXION OF THE UTERUS, ... 598

CHAPTER LII.

PROLAPSUS UTERI AND PROCIDENTIA, ... 605

CHAPTER LIII.

LACERATION OF THE VAGINA—LACERATION OF THE PERINEUM—ULCERATION (TUBERCULOUS, CANCEROUS, AND SYPHILITIC), ... 629

CHAPTER LIV.

EXTRA-UTERINE GESTATION, ... 642

CHAPTER LV.

STRANGURY, DYSURIA, ISCHURIA, RETENTION OF URINE, SUPPRESSION OF URINE, ENURESIS, ETC., ... 646

CHAPTER LVI.

GONORRHŒA IN WOMEN, ... 650

CHAPTER LVII.

SYPHILIS IN WOMEN, ... 655

CHAPTER LVIII.

DISEASES AND DIFFICULTIES OF PREGNANCY, ... 660

CHAPTER LIX.

Page.

Vomiting in Pregnancy, ... 672

CHAPTER LX.

Puerperal Mania, ... 688

CHAPTER LXI.

Diseased and Deformed Nipples—Milk Fever—Abscess of the Breast—Tumors of the Breast, Cancer, and Amputation of the Breast, ... 692

CHAPTER LXII.

Phlegmasia Dolens—Puerperal Phlebitis, or Milk-leg, . . 705

CHAPTER LXIII.

Hypertrophy, and Sub-involution of the Uterus, . . . 709

CHAPTER LXIV.

Hæmatocele, Pelvic Hæmatoma, Thrombus, Etc., . . . 716

CHAPTER LXV.

Elephantiasis, or Hypertrophy of the Clitoris, Labia Majora, and Labia Minora, Hermaphrodites, Nonentities, Tumors of the Labia, Etc., ... 723

CHAPTER LXVI.

Extirpation of the Uterus—Ablation of the Uterus, Hysterotomy, Etc., ... 727

CHAPTER LXVII.

Hysteralgia—Neuralgia Uteri—Irritable Uterus—Ascites in Women, ... 736

CHAPTER LXVIII.

Bathing—Vaginal Washes—Stomatitis Materna, . . . 744

CHAPTER LXIX.

Nymphomania (*The "Fureur Utérine" of the French*)—Atrophy and Hyper-involution of the Uterus—Absence of the Uterus—Malformation of the Uterus—Anæsthetics, ... 750

CHAPTER LXX.

Hysteria, ... 757

ILLUSTRATIONS.

Alphabetically Arranged.

PAGE.

ABSENCE of the uterus, ... opp. 723
Ante-version of the uterus, . . . " 598
Ante-flexion " " . . . " 599
Antiseptic spray apparatus, . . " 156
Applicator sponge tent, ... 366
" uterine, Emmet's, ... 366
" " Palmer's, ... 715
Artery forceps, ... 322
Ashton's perineum needle, . . . opp. 156
Aspirator, Tiemann & Co.'s, . . " 153
" Dieulafoy's, ... " 154
Atresia of the vagina, ... 503

BABCOCK supporter, ... opp. 146
Battery, Faradic, ... 38, 160, 714
" combination, ... 38
Bed swing, ... 339
Bi-valve speculum, vaginal, . . opp. 143
" " urethral, ... 446
Bony pelvis, female, . . . opp. title-page.
Bozeman's tenaculum, ... opp. 158
" curved scissors, ... 523
" straight scalpel, ... 636

CALLENDER'S drainage canula, opp. 158
Canula drainage, . . . 333, and " 158
Catheter, reversible, ... 457
" self-retaining, ... opp. 158
Cervix uteri, hypertrophy of, ... 162
" " elongation of, . . . opp. 609
" " amputated (two figs.), 169
" " double, ... 755
Chair examination, ... 22
Civiale's lithotriptor, ... opp. 147

PAGE.

Clamps for pedicle of ovarian tumors, ... opp. 161
Clamp, Thomas', ... " 161
" Dawson's improved, ... 321
" Spencer Wells' original, opp. 161
" " " new (three figs.)," 161
Clitoris, hypertrophy of, ... " 723
Combination battery, ... 38
Complete procidentia uteri, . . opp. 611
" inversion of the uterus, " 563
Counter pressure hook, ... 521
Curved scissors, ... 530
" " Bozeman's, ... 523
" " long, ... 146
" " Emmet's, ... 726
Cutler's suture cutter and forceps, . . 535

DAWSON'S pedicle clamp, improved, 321
" Sims' speculum, . . opp. 142
Depressor, vaginal, ... 522
Dieulafoy's aspirator, ... opp. 154
Dilator, uterine, ... " 147
" sponge tent, ... " 153
" vaginal, ... " 145
Double tenaculum forceps, ... 323
" uterus, ... 754
" cervix uteri, ... 755
" uterus and vagina, ... 503
Drainage tubes, ... 333, and opp. 158
Dressing forceps, uterine, ... " 144

EATON'S needle-holder in use, . . . 527
" " " " . . . opp. 145
" wire holder and twister, . " 145

PAGE.

Eaton's wire holder and twister, applied, ... opp. 145
" improved London supporter, ... " 157
Ecraseur, Edwards', ... 369
Edwards' Ecraseur, ... 369
Elastic pessaries, ... 149
" abdominal supporters, . opp. 157
Electrode, intra-uterine, ... 714
Electrolysis needles (one fig.), . . . 160
" " (seven figs.), . . 370
Elevation of the uterus, ... opp. 718
Elevator, Elliott's uterine, . . . " 159
Elliott's uterine elevator, . . . " 159
Elongation of the cervix uteri, . " 609
Emmet's sponge tent applicator, 597, 366
" curved scissors, ... 726
" sponge dilator, ... opp. 153
" " holder, ... 326
" counter pressure hook, . . . 521
" speculum, ... 635
Enlargement of the clitoris, . . opp. 723
Enucleators, Sims' (three figs.), . . . 365
Endoscope, urethral, ... 446
Examination chair, ... 22
Exploring trocar, ... opp. 154
Extirpated uterus, ... 733, 734

FARADIC batteries, . . . 38, 160, 714
Female form, ... opp. title page.
" pelvis, bony, . . " " "
Fibroma of the uterus, . . . 343, 352, 354
" " cervix, ... 343
" uterine, subserous, ... 343
" " submucous, ... 343
" " 352, 354
Fibroids, syringe for injecting, . . . 171
Fistulæ, vaginal, ... 524, 526, 527
" " . . . . . opp. 535
Forceps, vulsellum, ... " 154
" Nelaton's tumor, . . . " 156
" " pedicle, ... 365
" straight lithotomy, . . opp. 147
" " needle, ... 526
" artery, ... 322
" double tenaculum, ... 323
" uterine dressing, ... 184
" " " . . . opp. 144
" Greenhalgh's, ... 208
" Cutler's suture, ... 535

PAGE.

Front view of uterine organs, . opp. 17
Furguson's mirror speculum, . . " 143

GREENHALGH'S forceps, ... 208

HÆMATOCELE, recto-vaginal, opp. 718
Hæmatometra (two figs.), ... 503
Hermaphrodite, ... opp. 723
Hypertrophy of the uterus, ... 710
" of the clitoris, ... opp. 723
" " labia majora, . " 726
" " " minora, . " 725
" " cervix uteri, ... 162
Hysterotome, White's, ... opp. 144
" Simpson's, ... " 144

IMPROVED London abdominal supporter, ... opp. 157
Imp'd Peaslee perineum needles, " 145
Inflatable pessary, ... 149
Inhaler, Lente's modified, . . . opp. 156
Intra-uterine electrode, ... 714
Inversion of the uterus, ... opp. 563

LACERATION of the perineum, . . 635
" of the perineum, adjusted, 638
" " " sutures placed, 635
Lente's inhaler, ... opp. 156
Ligature cutter, ... 535
Ligatures, ... 169, 346
Lithotomy forceps, ... opp. 147
Lithotriptor, ... " 147
Little's antiseptic spray apparatus, " 156
" trocar, ... " 159
London abdominal supporter (old), " 157
" " " improved, " 157
Long curved scissors, ... 146
" " trocar, ... 125
" " " (uterine), ... 510

M'INTOSH'S supporter, ... 150
Mirror speculum, ... opp. 143
Mucous polypi, uterine, ... 352

NEEDLE HOLDER, Eaton's, 527, opp. 145
" " Sims', ... 526
" " curved, . . opp. 145
" " straight, ... 526
Needles, Pease's, ... 148
" suture, curved, ... opp. 158

PAGE.

Needles, suture, full curved, . . " 158
" perineum, ... " 156
" " Ashton's, ... " 156
" " Peaslee's improved, " 156
" open-eyed, ... 326
" electrolysis,. 160
" " (seven figs.), . . 370
Nelaton's pedicle forceps, ... 365
" tumor forceps, ... opp. 156
Nelson's tri-valve speculum, . . " 143
Nonentity, ... " 723
Nott's depressor, ... 522

OLD WOMAN'S uterus, ... 27
" " vagina, ... 27
Old London abdominal supporter, opp. 157
Open-eyed needle, ... 326
Operating tables, ... 319, 703
Operation for lacerations of perineum, 635
" " vesico-vaginal fistula, opp. 535
" " " " " 524, 526, 527
Original speculum, Sims', . . . opp. 142
" clamp, Spencer Wells', . " 161
" London supporter, . . . " 157
Os uteri, virgin, ... 26
" " old woman's, ... 27

PALMER'S uterine dilator, . . . opp. 147
" applicator, ... 515
Peaslee's perineum needles, . . opp. 156
Pease's needle (perineum), ... 148
Pedicle clamps (four figs.), . . . opp. 161
" " Dawson's improved, . . 321
Pelvic hæmatocele, ... opp. 718
Pelvis, female, bony, . . . opp. title page.
Pessary, inflatable, ... 149
" elastic ring, ... 149
Perineum, operation for restoring laceration of, ... 635
" restored after laceration of, 638
Polypi, mucous uterine, ... 352
" fibrous uterine, . . . 343, 352, 354
Procidentia uteri, ... opp. 609
" " complete, . . . " 611
Prolapsus uteri, ... opp. 605 and 710
" " . . . . . opp. 606
" " . . . . . " 608

QUILL, suture, adjusted, ... 638

PAGE.

RECTO-VAGINAL hæmatocele, opp. 718
Repositor, White's uterine, ... 573
Retractor, Emmet's vaginal, ... 635
Retro-version of the uterus, . . opp. 578
Retro-flexion " " . . . " 580
Reversible catheter, ... 457
Round elastic pessary, ... 149

SCALPEL, Bozeman's, ... 636
Scissors, " 523
" curved, ... 530, 726
Self-retaining catheter, ... opp. 158
Side view of uterine organs, . . opp. 21
Sims' uterine elevator, ... " 159
" enucleators (three figs.), ... 365
" needle holder, ... 526
" original speculum, ... opp. 142
" folding " . . . . " 142
" Dawson's imp. " . . . . " 142
" vaginal dilator, ... " 145
" sponge holder, ... 326
" sponge dilator, ... opp. 153
" enucleators, ... 347
Simpson's sound, ... opp. 144
" hysterotome, ... " 144
Skene's sound, ... " 144
" urethral endoscope, ... 446
Sound, steel, ... opp. 144
" Simpson's, ... " 144
" Skene's, ... " 144
Speculum, urethral bi-valve, ... 446
" " Skene's, ... 446
" Sims' (three figs.), . . opp. 142
" Wocher's bi-valve, . . " 143
" Nelson's tri-valve, . . " 143
" Furguson's mirror, . . " 143
" Emmet's vaginal, ... 635
Spencer Wells' trocar, ... 320
" " artery forceps, ... 322
" " pedicle clamp (orig'l), opp. 161
" " " " new, (three figs.), " 161
Sphygmograph, ... 161
Sponge tents, ... 150
Sponge tent applicator, ... 366
" " holder, ... 597
" " dilator, ... opp. 153
" " sponge holder, ... 326
Subserous fibroid of uterus, ... 343
Submucous " " " 343

PAGE.

Swing, bed, ... 339
Sub-involution of the uterus, ... 710
Supporter, Babcock's, ... opp. 146
" old London abdominal, . . " 157
" impr'd Lond. abd'l, Eaton's, " 157
" silk elastic, ... " 157
" M'Intosh's, ... 150
Suture cutter and forceps, ... 535
" needles, curved, ... opp. 158
" " half curved, . . " 158
Sutures in cervix uteri (two figs.), . . 169
Syringe for injecting uterine fibroids, 171

TABLES, operating, ... 319, 703
Tenaculum, Bozeman's, ... opp. 158
" double, ... 323
Thomas' pedicle clamp, ... opp. 161
Tiemann & Co.'s aspirator, . . . " 153
Trocar, common, ... 391
" exploring, ... opp. 154
" long curved, ... 125
" " " uterine, ... 510
" Spencer Wells', ... 320
" Little's, ... opp. 159
Tri-valve speculum, Nelson's, . . opp. 143
Tumor forceps, Nelaton's, ... 365
" " " . . . . opp. 156

UTERINE organs, normal position, ... opp. 17, 21
" dressing forceps, . . 184, opp. 144
" elevator, Elliott's, . . . " 159
" " Sims', ... " 159
" repositor, White's, ... 573
" fibroids (three figs.), ... 343
" " syringe for injecting, . 171

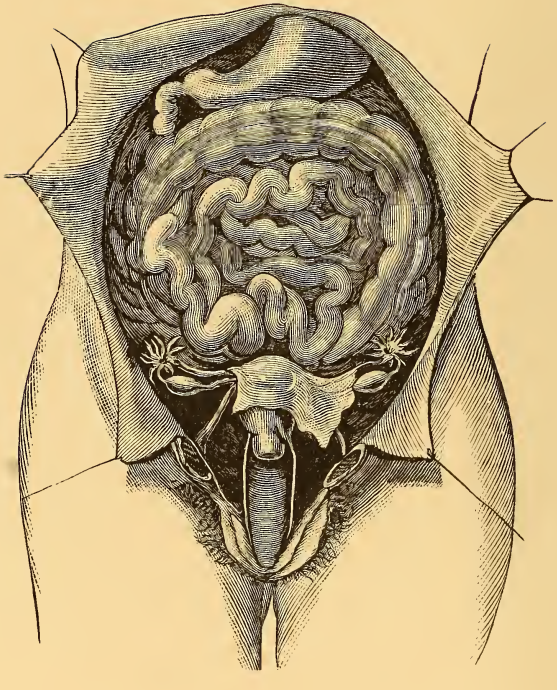
PAGE.

Uterine polypi (mucous), ... 352
" " (fibrous), ... 352, 354
" dilator, Palmer's, ... opp. 145
Uterus, hypertrophy of, ... 162, 710
" sub-involution of, ... 710
" virgin, ... 26
" old woman's, ... 27
" double, ... 503, 754
" extirpated (two figs.), . . 733, 734
" elevation of, ... opp. 718
" prolapse of, . . opp. 605, 606, 609
" " " . . . . . opp. 710
" versions of, ... opp. 578, 598
" flexions of, ... " 580, 599
" procidentia of, . . . " 609, 611
" absence of, ... opp. 723
" drawn out in sight, . . . " 535

VAGINA, old woman's, ... 27
" atrophy of, ... opp. 723
" atresia of, ... 503
" double, ... 503
Vaginal dilator, ... opp. 145
" pessaries, ... 149
" specula (three figs.), . . opp. 142
" " " " . . " 143
Virgin os uteri, ... 26
Vulsellum forceps, ... opp. 154, 535

WELLS' artery forceps, ... 322
" pedicle clamps (4 figs.), opp. 161
" trocar, ... 320
White's uterine repositor, ... 573
Wire holder and twister, Eaton's, opp. 145
" " " " " applied, " 145
Wocher's bi-valve speculum, . . . " 143

Plate I.



FRONT VIEW OF UTERINE ORGANS IN THEIR NORMAL POSITION.

THE

DISEASES OF WOMEN.

CHAPTER I.

INTRODUCTION.

To-day the diseases peculiar to women are daily brought to the attention of the general practitioner of medicine. It is a fact that these diseases are on the increase to an alarming extent, and bid fair to seriously affect coming generations, physically and morally.

The world has a right to look to the members of the medical profession for advice on matters of this kind, and I judge the profession would come short of its duty did it fail to point out, and seek to remedy, the causes which have led to, and are increasing, this great amount of female suffering and disease, thereby enfeebling the offspring which are to come forward on the stage of action, in a few years from now, as the business men, statesmen, and those who must fill the posts of responsibility.

May we not, then, in view of the necessities of the times, spend a short time in consideration of the causes that have produced this increase of the diseases peculiar to women?

First, the advancements of civilization, so called, have caused a life of luxury and ease to supplant that of toil and exercise. The necessity of exercise is as imperative with the female as the male. Strong muscle, active digestion, and assimilation are not the result of indolence, but of activity.

Again, our food of late years has been too fine. Pastries,

fine flour, and highly seasoned food have driven out of use, almost, the plain bread and milk and mush and milk of our fathers.

Again, the fashion of lacing the chest and upper part of the abdomen has been, perhaps, the most fruitful cause of the long train of women's ailments and weaknesses. By contracting the thorax the action of the heart is impeded, the lungs are prevented from a full expansion, the blood is continually charged with too large a quantity of carbonic acid gas. *Oxygen* is not received into the blood in sufficient quantities to stimulate healthy nerve action, and the result, of course, is lassitude, debility, and disease.

Another injury resulting from lacing the upper part of the abdomen is, that the abdominal organs are thereby displaced downwards, and press heavily upon the uterine organs. These are thereby displaced and inflamed, producing not only the symptoms resulting directly from these conditions, but an immense amount of trouble through reflex action on the cerebro-spinal and sympathetic nervous systems, thereby deranging all the normal functions of the body, and sometimes the mind as well.

The wearing of clothing suspended from the hips aids in producing all the ills just mentioned, as resulting in greater or less degree from lacing. Thin clothing, especially upon the extremities, in winter, conjoined with the previously mentioned customs, is not to be forgotten as one cause of female suffering.

And, finally, the cause which, we must recollect, is the great curse of the American ladies is to be found in those means used to prevent pregnancy and produce abortion. The disinclination of so many married ladies to become mothers has led them to adopt means for the prevention of conception that have had the effect of producing diseases in themselves of a serious nature. The various means used to produce abortion have entailed on many a lady life-long suffering.

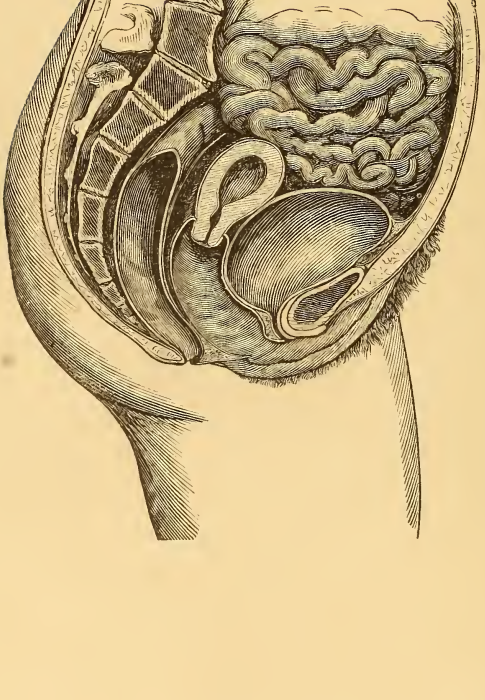
These remarks may be sufficiently explicit in this connection. (See chapter on Abortion.)

These causes have led to so many ailments, directly and through reflex action, that the general practitioner seems obliged to become conversant with the diseases of women, and we think he should be better informed in regard to these ailments than any other, because they are more delicate to manage, and it is not always that the patient will volunteer information in regard to them. And when investigation is thought to be necessary by the physician the patient shrinks from it, and purposely misleads the physician in describing her symptoms, so as to convince him that the difficulty is in the head, liver, back, or stomach, when it is clear that all the symptoms are due to uterine disease or displacement.

Let me recommend that the student, before entering upon the study of diseases of women, become very familiar with the anatomy of the female genitalia, and the arrangement of the sympathetic ganglia throughout the entire system. Let him read well the physiology of the healthy female, that deviations from health may be readily recognized, recollecting, however, that there are some exceptions to general rules. That some women may normally menstruate every two or three or five weeks; that the flow may with some be three times in amount of what others would discharge, and still they might only have this idiosyncrasy, and be not diseased at all. By the study of the healthy subject he will learn that owing to the varying lengths of the vagina in different women the position of the uterus that would in one case be *partial prolapse* would in another be normal. Hence, it will be seen, that the greater the knowledge we have of the peculiarities of different women, as well as the general knowledge of the normal conditions, the greater will be our opportunities to judge correctly of the cases we may have to treat, and the more correct will be the diagnosis which we will form (if the diagnosis of the case is all that is asked of us).

It may be well to mention that the early introduction into society of girls of tender age, the desire of mothers to make young ladies of their girls when they should be considered children, requiring them to refrain from that active exercise that is so necessary for the full development of muscle and strength; the early marriages so frequently consummated, together with the constitutional debility inherited from mothers already affected with weaknesses dependent upon errors of their diet, clothing, and exercise in early life,—all tend to enfeeble the constitution and develop special weaknesses and diseases.

Plate II.



SIDE VIEW OF FEMALE PELVIC ORGANS IN NATURAL POSITION.

CHAPTER II.

GENERAL DIAGNOSIS.

It is not every patient with uterine disease that will come to the physician and announce that she is suffering with such an ailment; that is, they do not go to the general practitioner in this way (though the acknowledged gynæcologist has the advantage in this respect, as the patient's presence in his office is an announcement of some such ailment, and he is at liberty to suppose his patient has been convinced that she is suffering from some disease of the female generative organs, and has come for examination and advice); hence, it becomes necessary that the general practitioner look for indications of these ailments among the symptoms given by the patient. Some of these symptoms, that may point to uterine difficulties, are, pain in the occiput, or top of the head, burning heat in top of head and soles of feet, hot flashes of long standing, too frequent or painful micturition, persistent constipation, bleeding piles, pain in small of back and thighs, *nausea*, loss of appetite, indigestion, etc. Either of these symptoms, alone, would not assure you of uterine disease; but either of them gives you cause to investigate further. First, note how long these symptoms have existed, how much treatment they have had with a failure to obtain relief; inquire further, and ascertain if we have two or three, or more, of these symptoms in the same case; also, if there is dysmenorrhœa, amenorrhœa, menorrhagia, or leucorrhœa—if so, of how long duration, noticing all the peculiarities of each case in these regards. Take into account the age of the patient, whether married or single, widows or spinsters, mothers or barren.

When all these things are considered, and the difficulty

has been of long standing, and we feel assured that our patient's sufferings are caused from uterine disease, we are justified in requesting a physical examination, per vaginam. This does not contemplate any exposure of the patient, and consists of a digital examination, and taking note of the dryness or moisture of the vagina, heat, size of neck of uterus, whether smooth, nodulated, or fissured; also, its position in the vagina, etc.,—all this may be determined with the patient standing.

FIG. NO. 1.—EXAMINATION CHAIR.
(Mitchell, Rammelsberg & Co., Cincinnati, O.)

Very chronic and severe cases, of course, will demand more careful examination with the uterine sound, and sometimes we may need the aid of the vaginal speculum as well, in aid of diagnosis. I value the uterine sound much more highly than the vaginal speculum. In many cases, as I have hinted, neither of these instruments is needed. Introducing the vaginal speculum in all cases, as has become the routine habit of some gynæcologists, is not to be commended or followed. Its use may be required in treatment much more frequently

than in diagnosis. To make a vaginal examination I prefer to have the patient sit in a regular examination chair. (See Fig. No. 1.) It is less embarrassing to the patient; it seems more modest; it is more convenient for the physician. Let the cover be thrown over her lap while sitting in the chair, and then gently tip the chair backwards. The patient is thus placed in the reclining posture without scarcely realizing the fact. Some gentle examination of the size of the abdomen, with slight percussion external to the cover, to ascertain if there is much tympanites or tenderness, tends to assure the patient, when we may gently slip the clothing upwards without disturbing the cover, and pass the extended palm of the hand over the abdomen, first over one or two thicknesses of clothing, then in direct contact with the flesh. By this examination we have determined the presence or absence of tenderness, heat, and tympanites and have, in many cases, determined whether or not we have ovarian tumors of large size, pregnancy of several months' duration, or any large fibroids of the uterus.

I do not mean to say that this external examination will be conclusive as to the diagnosis of any of these conditions, except regarding tenderness, tympanitis, and heat; but I do say that this manipulation will materially assist in the special diagnosis which I will explain in detail under the proper special heads. This examination gives further advantage, viz., that our patient has by this time become somewhat accustomed to manipulation, and, being assured by this method of examination under the cover, that she is not to be exposed or rudely handled, we will have little difficulty to proceed in making a digital examination per vaginam, following that by examination with the uterine sound, and finally with the speculum, if need be.

Gentleness, and the most respectful demeanor, will win the confidence of our patient, and greatly promote the success of the treatment used; for, without the confidence and respect of his patient, the physician will fail in receiving that careful

attention to his directions and co-operation in the treatment which is so essential for success in any disease, but more especially in those peculiar to women, as, owing to their delicacy, it is necessary that much of the treatment be carried out by themselves. The physician has not the opportunity to frequently examine the case, or apply treatment, as in other ailments.

The general appearance of the patient is to be studied, and the diathesis noted. The cancerous cachexia, which is indicated by the sallow, brownish yellow complexion, combined with the anxious, wearied, sunken countenance, is to be recognized at a glance. The tuberculous cachexia is indicated by the shrunken features, the bright, glassy eye, the hectic cheek, emaciation, with the hopeful condition of mind of the patient, conjoined with the slight or severe cough, which the patient always insists is but a slight cold. The location of the tuberculous matter may be in the lungs, liver, bowels, brain, or other parts of the system. But if we have the tuberculous or cancerous cachexia clearly defined, we must, of course, address the treatment to the general condition of the patient, being assured that unless we are able to bring the system to a better standard of health we will have little reason to hope for a favorable termination of the case, whatever special ailment the patient may have. To what extent these conditions or diatheses may be removed with proper remedies I will state under their proper chapters.

A question may arise in the mind of the physician as to the propriety of suggesting a physical examination in case the patient is an unmarried lady. Some seem to think these cases should never be subjected to physical examination, and let them suffer on. Now, while I would not propose a physical examination of the virgin as soon as I would in the case of a patient that had been married, and would try to avoid the necessity of making an examination, still, if the case seemed to require it very urgently, on account of the long

duration of the difficulty, or the intensity of the suffering, I would proceed to make the examination without hesitation.

I will relate two or three cases only, as examples of many that have come under my notice and treatment, that will show how great the necessity for an examination that sometimes exists in these cases, that the patient's life may be saved, not to mention the saving of suffering and impairment of constitution by neglect.

In 1870 a young lady from a town some thirty miles distant, whose age was about twenty-eight years, consulted me about a persistent ague, as she called it, of two years' duration. On inquiry, I learned that her chills were nervous, clearly; that she had hot flashes at irregular intervals; had much back-ache, constipation, severe dysmenorrhœa, with much nausea and excruciating headaches, heat in the top of her head, cold feet and hands. She had taken every medicine that three physicians of different schools could suggest, and found no relief. I suspected uterine displacement as the cause of her ailments; made an examination per vaginam at once, found retroversion of the uterus, restored the organ, gave her *Nux* 3^{x} three times a day, and she was soon well, every symptom having disappeared.

Case Second.—A young lady, aged about thirty years, was brought to me, four years since, by her sister, whom I had previously treated, and I found her complaining of a fish-bone in her throat. I examined carefully, even using the probang, and finding no obstruction in the throat or œsophagus; and, learning that the trouble had existed over three years, and had been treated by several good physicians without benefit, I concluded this symptom must result from reflex uterine irritation, though the patient would acknowledge no other symptom to corroborate my diagnosis. I asked for, and insisted upon, a vaginal examination, which was reluctantly consented to, when I found a prolapsus almost amounting to complete procidentia! I restored the organ by

appropriate treatment, and within three days she ceased to complain of the fish-bone in her throat. Some little attention to maintain the womb *in situ* was all the case required, and a complete cure was the result.

Case Third.—A miss, aged about twenty-three years, consulted me, about four years since, as to her cough, that had existed some three years, and resisted all treatment. On inquiry, I found that menstruation had been getting more and more scanty for three or four years, until it was entirely absent for some six months past. I made, or rather attempted to make, a vaginal examination, and found an imperforate hymen completely closing the vaginal orifice. (There must have formerly existed a small opening, that had gradually closed by adhesive inflammation.) I operated on the case, assisted by the late and honored Dr. Troyer, of Peoria, Ill., removed a small amount of retained menstrual flow (the

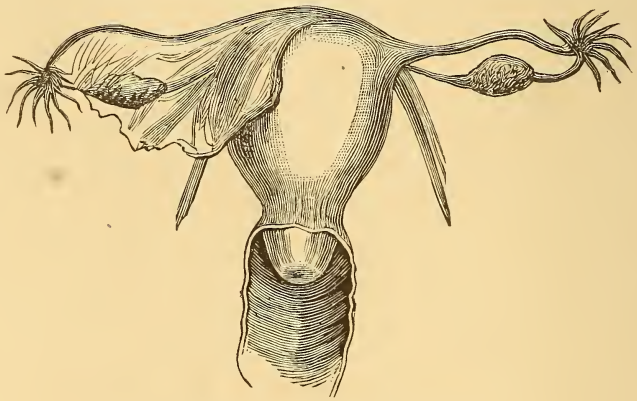


Fig. No. 2.—Virgin Os Uteri.

small amount being due to her emaciated condition), and succeeded, by proper remedies, in restoring normal healthy menstruation. In a few months my patient was fully recovered from her cough, and had become rosy and fleshy.

I might go on relating numbers of cases as striking as these occurring in my private practice; but I do not think a work on diseases of women should be very much cumbered

with the detail of cases, and should be only mentioned in sufficient number to demonstrate the principle under consideration.

It will be seen that we fully believe that it is sometimes imperatively necessary to make vaginal examinations in virgin patients. In examining the virgin per vaginam, we can generally introduce but one finger. This should be well smeared with some oily substance. I prefer vaseline, as its healing properties make it desirable in case of some slight laceration of the hymen, which will usually occur.

The virgin os uteri is small, round, and smooth, projecting into the vagina about an inch. (See cut No. 2.) It should be found a little posterior to the center of the vagina, about three or three and a half inches from the hymen, or mouth of the vagina.

The opening into the virgin uterus is so small it may require careful feeling to detect the dent or fissure. In case of those ladies who have borne children the vagina is capable of receiving two fingers, and we can make a much more satisfactory examination with two than with one. In these cases we find the neck of the uterus larger, the opening more distinct.

Fig. No. 3.—Old Woman's Os Uteri.

In the aged the os is situated normally at the upper extremity of the vagina, and projects into the vagina little or none at all. The anterior, posterior, and sometimes the lateral walls of the vagina are shrunken into bands or tendon like cords, that give the upper portion of the vagina a rough, irregular, tendonous feel, which we might mistake for dis-

ease did we not know this change was peculiar to women after the climacteric period has been passed several years.

Finally, I will agree with Professor Byford in saying that a tender uterus is a diseased uterus. Normally, it is not tender. It should give no pain to make a thorough examination, either digital or with the speculum or sound. If a careful examination gives pain we may be assured that something is wrong; that is, always understanding that a suitable sized speculum is used. A speculum of no considerable size should, of course, be introduced into the virgin vagina.

For these examinations I prefer the uterine sound invented by Simpson, though I desire two or three sized probes always at hand. The bi-valve speculum manufactured by Max Wocher & Son, of Cincinnati, is the speculum I generally use; but in some cases we must have the tri-valve. Nelson's is, perhaps, the best. I find little use for the common glass instrument recommended by Furguson. Occasionally a case can best be examined with the aid of Sims' slit speculum, but its use requires the aid of an experienced assistant. (See chapter on Instruments.)

The diagnosis of diseases of women has been greatly aided during the past twenty-five years by our distinguished countrymen, Drs. Ludlam and Byford, of Chicago; Sims' of New York; also, Simpson, of England; Kiwisch, in Germany; Huguier, in France; and Ziemssen, of Bavaria; though the uterine sound and vaginal speculum were known to the ancients, Soranus having mentioned their use.

Conjoined manipulation seems to have been well understood by Puzos, as far back as 1750. In the excavations of Pompeii a speculum was found, the three blades of which were expanded by a screw; but, so far as we can learn, its use was not appreciated until within the last quarter of a century.

Anæsthesia is to be employed in cases that can not be well diagnosed without its use—such cases are those who

suffer from extreme tenderness of the vagina or abdomen, and where we feel in doubt of the existence of ovarian tumors or tumors of the uterus, owing to the rigidity of the abdominal muscles. Schroeder* mentions two cases which were sent him for ovariotomy, where he found not only no ovarian disease, but did not even find a circumscribed abdominal tumor.

A lady was sent me from Kentucky, last year, for ovariotomy, who had no disease of the ovary, but a dead fœtus in the uterus, which I removed, though it presented many symptoms calculated to lead one to suppose she had disease of the ovary. These mistakes might have been avoided by placing the patient under an anæsthetic while making the examination. I need scarcely remark that in examinations, as well as operations, a competent assistant should administer the anæsthetic.

No physician should be so careless of his reputation as to attempt to administer any anæsthetic to a patient without the presence of a friend. A lady's imagination is so much affected, in some instances, by the anæsthetic that the physician might be accused wrongfully by her of improper familiarities, had he not a friend present to prove his innocence.

In conclusion of this subject I will say, that in case the patient refuses to submit to as thorough an examination as the physician thinks necessary, he is perfectly justified in not prescribing for the case. By attempting to prescribe for cases with an imperfect knowledge of them, the physician is almost sure to lose reputation, and the patient loses valuable time in many cases. By being decided about the matter, the physician generally commands the respect of the patient, and his success will be the means of more extended usefulness.

Conjoined manipulation, previously mentioned, is made by introducing one or two fingers of one hand into the vagina until the cervix uteri is felt, and then pressing the

*Ziemssen's Cyclopædia, Vol. X.

fingers of the other hand down into the pelvis from above, pressing just above the pubis, and carrying the abdominal walls downwards before the fingers into the pelvis. In this way the position and diseases of the uterus may sometimes be diagnosed.

In cases of enlargement of the uterus from tumors, or in pregnancy, the extended palm of the hand is laid upon the hypogastric region, in making this examination, instead of pressing down into the pelvis. Rectal examination is sometimes necessary to determine the diagnosis of disease in the pelvis. This is especially the case in the diagnosis of retroversion, cellulitis, recto-vaginal hæmatocele, and some of the diseases of the ovary. The student should also bear in mind that hemorrhoids, fissures of the anus, tumors in the rectum, prolapsus of the bowel, etc., may simulate uterine disease or displacement. The second finger should ordinarily be used in making a rectal examination, as it is longer than the other fingers and consequently enables us to reach higher up in the bowel. The finger should, of course, be well smeared with vaseline or some oleaginous substance, as in making a vaginal examination. In making a rectal examination the patient should lie upon her side, with the thighs flexed upon the abdomen. Over the patient should be thrown a cover. There is no need of any exposure of the person in these examinations unless we have reason to suspect fissures of the anus from having hemorrhage from the rectum and finding no hemorrhoids, and then the parts can be seen through the slit in the cover. In the office we have a cover always at hand about two-thirds as large as a sheet, with a slit about five inches long in its center. A slight opening may be made in a sheet and be kept at the house by the patient when we make visits to her there, in cases requiring frequent examination. An ordinary sheet may be used for a cover in an emergency.

CHAPTER III.

NORMAL MENSTRUATION, AND AMENORRHŒA.

The term amenorrhœa signifies the absence of the usual monthly menstrual flow in women of proper age, where the suppression is not due to pregnancy. The menstrual flow, or catamenia, commences with girls in this country usually from the fourteenth to the sixteenth year of their age, though some instances of the appearance of the flow at ten or twelve years of age are observed, especially in the Southern States. Isolated cases have occurred of menstruation at even an earlier period. The age when the menses cease is called the climacteric period, and occurs at about forty or fifty years of age, though exceptional cases have been known of their cessation permanently as early as twenty-eight or thirty years of age—these cases of early cessation being those who commenced exceptionally early. Still, as a general rule, the girl commences to menstruate at about fourteen years of age, and continues to menstruate each twenty-eight days till reaching the age of about forty-five or forty-eight years. Sometimes the commencement of menstruation is delayed till the age of seventeen or eighteen is reached; seldom, however, without showing evidences of impaired health, causing the propriety of denominating the case one of amenorrhœa. It may commence at the proper time, and continue for months or years regularly, and cease from various causes. This complete amenorrhœa usually produces grave effects on the system. Again, we may have only a slight show at each monthly period. This condition is called partial amenorrhœa.

The quantity of menstrual flow and its duration varies greatly in different women, some only soiling three or four

napkins, others ten or twelve; some have the flow to last only two or three days, others six or eight; hence, a condition that would be amenorrhœa in one woman, would be a full menstruation in another. The physician should learn the peculiarity of his patient in this regard at first, if possible, that he may better judge the proper amount that should be discharged. The interval also varies much; some menstruate every three weeks, others every six weeks, and are healthy; but these are exceptional cases. Another class of exceptional cases are those who *never* menstruate, and are still in good health. This class is exceedingly small.

Symptoms.

In addition to the absence of the usual menstrual flow, we have various symptoms manifesting themselves in amenorrhœa. First, pain in the back and loins at about the time the menses should occur; nausea, produced from sympathetic nerve action, occasioned by the congested condition of the uterus, resulting from the failure of menstruation; acute or chronic inflammation of the uterus; anæmia, sometimes resulting from the vitiated sanguification produced from the general derangement of the digestive and assimilative process; headache, dizziness, lassitude, the white tongue, palpitation of the heart, shortness of breath, loss of appetite, and a general atonic condition of the system. This latter condition is known as *chlorosis*.

Another symptom which has been too little recognized by authors is *congestion of the lungs*, and is so frequently a condition resulting from amenorrhœa, that I am surprised that more has not been written on the subject. I have frequently been consulted in cases that were supposed to be phthisis, without any doubt (cases which had been so diagnosed by several physicians), where the cough and emaciation had gradually increased for two or three years, and, in one instance I recall now to my mind, over six years, where I found the history

of the case showed that amenorrhœa had been the *cause* of all this trouble, and not a *result* of this cough and chlorosis; and I believe, in every case of this kind that I have had the treatment of fully, I have succeeded in establishing menstruation, and obtaining entire relief from the cough, with great increase in flesh and an entire restoration of strength and health. Hence, I would be emphatic in calling the attention of the physician to the congestion of the lungs as one of the prominent symptoms of amenorrœha. I believe many a young lady has filled her grave prematurely for the want of proper attention to the cause of her ailments, where they have been supposed to be constitutional, and were really caused from amenorrhœa. Why authors have failed to make more prominent this resultant symptom of amenorrhœa is more strange from the fact that many physicians, in conversation and in society meetings, have expressed the same experience. The length of time that is necessary for the amenorrhœa to exist before these symptoms of the general system, lungs, and stomach manifest themselves varies greatly in different cases. Some will manifest active symptoms of this kind at once on the suppression of the discharge, while with others the symptoms are delayed several months. More generally we have, within a few weeks, backache, pain in the iliac and hypogastric regions, loss of appetite, dullness, languor, sometimes extreme nervousness, fever, etc., indicating active inflammatory action. This is more likely to be the case if the suppression has been the result of cold at or about the last menstruation. A sense of weight in the pelvis is complained of, with tenderness over the lower part of the abdomen in some instances. In other cases the symptoms are not active, but more moderate in their manifestation. We have the headache and backache only, or dizziness is complained of, with torpid bowels and want of appetite. Other cases show congestion of the lungs as one of the first symptoms, being decided at first and gradually becoming less

severe, and still some irritation remaining, with some cough and slight expectoration, increasing from month to month. In cases of entire absence of menstruation, where the flow has never been established and the patient has reached the age of maturity, we usually have the symptoms of general decline well marked, with less prominent symptoms in the pelvis. The digestion and assimilation generally are most impaired in this class of cases, and a general anæmia is often diagnosed carelessly, when the true understanding of the case shows that the retention in the blood of the menstrual fluid, with the consequent irritation in the ovaries and uterus, have caused this apparent anæmia, and the true treatment is to bring on the menstrual flow—not filling the system with iron, however, as has been the practice of the old school for a century past. Absence of menstruation during lactation is not considered amenorrhœa, but is a normal condition. Anomalous cases, where menstruation is entirely absent, and no injurious effect is produced on the general system, are to be let alone as a general rule. Loewy relates a case where a woman had six children previous to her menstruation, which first appeared at the thirty-first year of her age. We have in these cases, generally, all the external evidences of puberty, with the exception that the breasts are rudimentary; but, as this is also observed in many who menstruate regularly, it is not peculiar to this class of women. We sometimes have what is termed vicarious menstruation, which indicates a flow of blood from some other part of the body, as the nose, stomach, or bowels. Again, we have a copious leucorrhœal discharge, which seems to take the place of the regular catamenia.

Etiology.

The most frequent cause of amenorrhœa is doubtless cold. Getting the feet wet, or being exposed to cold with insufficient clothing at about the time of the menstrual flow, will often cause amenorrhœa, from a sub-acute inflammatory action set

up in the uterine organs, especially the lining membrane of the uterus. This may cause suppression by means of the temporary occlusion of the neck of the uterus, from the swollen condition of its lining membrane; or the inflammatory action may cause an indurated or thickened condition of the endometrium, or the exudation of a semi-plastic material may prevent the menstrual flow.

Doubtless, an anæmic condition sometimes causes delayed menstruation in the young, and may cause suppression as well, as we see in cases of *typhus* and *typhoid fevers*, and other diseases of debility tending to impoverished blood—especially is this the case in advanced stages of tuberculosis.

Psychical influences sometimes produce amenorrhœa. Thus great mental depression or great fright may produce suppression. (See Parvin on the "Influence of the Mind over Menstruation.") Raciborski and Bohata mention cases of amenorrhœa which may occur from great fear of pregnancy, in cases of unmarried girls, or women who have been led astray or forcibly violated, and have reason to stand in extreme dread of pregnancy. Again, as Ziemssen mentions, (on page 328, Vol. X), it seems possible for the period to be delayed or fail altogether in women who eagerly desire the occurrence of pregnancy, and who look for the appearance of the menses with great mental agitation, from fear of being barren. Some cases of amenorrhœa seem to result from an entire absence of sexual strength, there being no sexual passion. This want of strength, or torpidity, of the sexual functions seems to result from close confinement in convents, the association with females only, hard study, so as to divert all the nerve force to the head at the expense of the sexual system. The imperforate hymen, atresia of the vagina, or cervix uteri, absence of vagina, uterus, and ovaries, of course would prevent menstruation.

These malformations and accidentally acquired or congenital deformities may exist, and the physician be in ignorance of

them for a time, as he is not justified in making a physical examination of a young lady patient suffering from amenorrhœa, until some remedies have been used to establish the function. After they fail to produce menstruation when given for a considerable length of time, and the health of our patient is greatly impaired, we may proceed to make a physical examination of the generative organs. Some patients suffering from this difficulty are troubled with severe neuralgia, not only affecting the uterus and ovaries, but the head, face, and sometimes the stomach; and some have hysterical convulsions. These conditions are usually considered results of the amenorrhœa; but the nerve symptoms, as well as the amenorrhœa, may be due to spinal difficulty, meningeal or otherwise.

Prognosis.

The prognosis of these cases is usually favorable, though it is grave and unfavorable when occurring in connection with a case of phthisis. We are to bear in mind, however, that the symptoms of phthisis are sometimes resultant from the amenorrhœa, and may disappear by curing the suppression, if there be not actual disorganization of the lung substance. If the case shows only chronic bronchitis, we make a favorable prognosis if the amenorrhœa preceded the cough. Much must depend upon the complications of the case as regards prognosis.

Treatment.

The treatment of amenorrhœa must be adapted to the various conditions of the particular case in hand. Recent cases of suppression, caused from cold, generally require *Aconite.*

Bell. is indicated if there is much weight and pressure in the lower abdomen.

Arsenicum Alb., if there is alternating heat and chilly feelings, with thirst.

Puls., if there is pain in the uterus and ovaries of an intermittent character.

Cimicif., if the pain is in the ovaries or runs down the thighs.

Bryonia, if the pains are sharp and darting, and worse on motion. These remedies, conjoined with the warm foot and hip bath, repeated daily, are generally efficient in restoring the flow. Cases that exhibit great debility, especially after severe illness, will generally require *China*, *Merc.*, *Nux*, etc.

Macrotine is sometimes useful in chronic cases.

Where the difficulty has been of several months' standing in married ladies, and also in case we may have any reason to suspect pregnancy, in married or unmarried, the physician should be careful to make a clear diagnosis of the absence of this condition before continuing treatment. When fully convinced there is not pregnancy, we may proceed to use electricity, placing the positive electrode over the pelvis, and the negative to the spine, passing it up and down the lower part of the back for five or ten minutes, using only a mild current; or we may introduce directly into the uterine cavity a metallic electrode, made much like the ordinary uterine sound of Simpson, to which is attached the positive pole of the battery, the negative applied to the spine as before. (See cut of uterine electrode, in chapter on Hypertrophy of the Uterus.) This may be repeated, if necessary, in three or four days, using always a very mild current of electricity.

Mustard sinapisms to the small of the back and over the hypogastric region are often very efficient. In those cases that are obstinate I would rely upon *Puls.* 3^{x} or *Macrotine* 3^{x} every three hours, giving occasionally, for a day or two, *China*, *Merc.*, or *Ars.*, while we interrupt the *Puls.* or *Mac.* for that length of time.

Cases caused by fright, I may say, always demand *Aconite*, except in a few that show decided tendency to twitching of the muscles and restlessness, where we may find *Ignatia*, or *Verat. alb.*, indicated. In case of imperforate hymen, of course, we should proceed to make an incision, and

evacuate the menstrual blood that has accumulated in the vagina. This is a simple operation, and requires no special remarks, except, perhaps, that we must remember to insert into the opening we have made a wad of lint or cotton smeared with vaseline, so as to prevent the reuniting of the

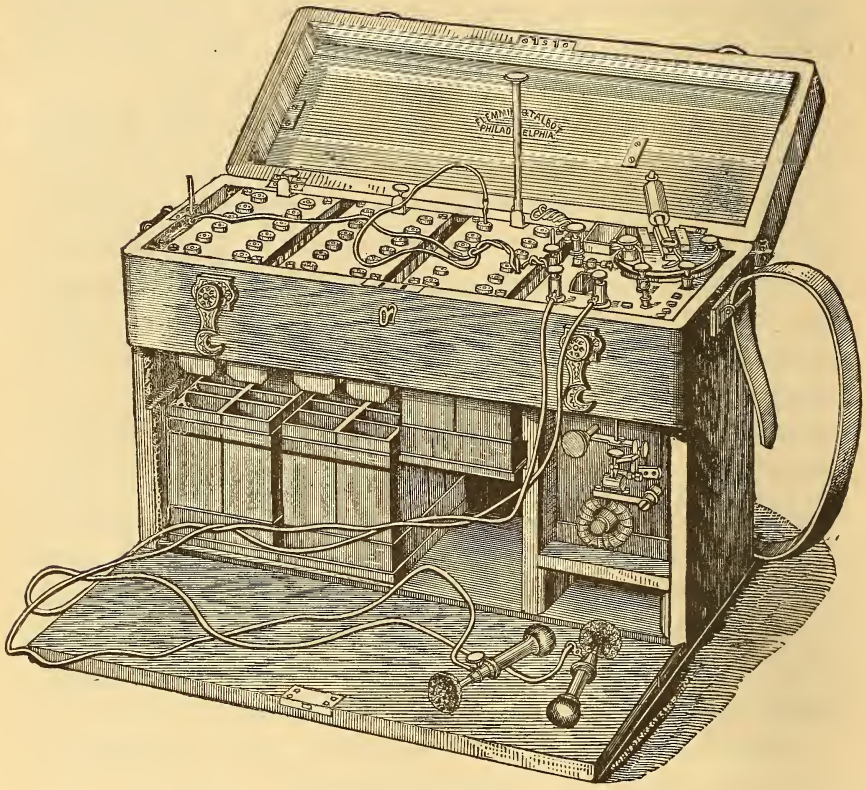


FIG. No. 4.—COMBINATION BATTERY.

This is a combination of a thirty-cell Galvanic Battery and a No 3 Faradic Battery. The above cut shows the method of putting the Battery in action by raising the cells. In application either the slow or the rapid interrupter of the Faradic apparatus can, by simply moving a switch, be made to act as an Automatic Rheotome, for interrupting the Galvanic current. In certain instances this combination of the two Batteries in one case is of great advantage.

incised hymen. The adhesions in the neck of the os uteri may sometimes be broken up with the uterine sound. When this can not be done, we may insert into the neck of the uterus, through the os, if it is perceptible, or, if not, then where it should be, a curved trocar, passing it in till we are

sure we have reached the cavity of the body of the uterus, being careful not to go too far, when, upon withdrawing the stylet, we will generally have a flow of menstrual fluid through the canula. I would advise the leaving of the canula in the uterus two or three days, having the patient maintain the recumbent position. The canula may be retained by means of a wad of cotton placed against the end of the canula in the vagina, and retained with a **T** bandage. Of course, these wads of cotton should be removed, and replaced with fresh ones, three or four times a day. In about three days remove the canula, and daily pass the uterine sound through the opening, having it well smeared with vaseline before it is introduced. This should be continued a week or so. In case of absence of the uterus, or ovaries, we can do nothing.

Fortunately these cases show small indications of womanhood, being angular in build, with rudimentary breasts, a coarse voice, and generally suffer little, or none at all, from the absence of menstruation; but in cases of well-formed uterus and ovaries, with occlusion of the neck, attresia of the vagina, or imperforate hymen, it is quite different.

Some cases of delayed menstruation show no signs of general derangement of the system. On the contrary, they appear as healthy as any one; and we are consulted by the mother for fear of serious consequences. Generally, in such cases, I would recommend *Puls.* 3^{x}, a powder three times a day, with *horseback riding, change of air,* etc., which generally will set the matter right in a short time. Should there be any serious symptoms arising—such as slight cough, shortness of breath, dyspeptic symptoms, and the like—the case should receive careful attention till the menstruation is established; for until then our patient is in imminent danger. The preparations of iron I would not recommend, as I have found the remedies already suggested much the more efficient. In fact, I never observed good effects from *Iron* in these cases. The

leucorrhœa, that sometimes seems to take the place of the menstruation, is not to be stopped by astringent vaginal injections, as is so often done by the allopaths; but we are to consider that the leucorrhœa is a symptom of the inflamed condition of the endometrium, or vagina, and that remedies to relieve the inflammation will not only restore the menstrual flow, but will also cure the leucorrhœa as well. Warm clothing, especially to the lower extremities, is to be insisted upon; suitable bathing and exercise are not to be forgotten. Going into society is sometimes beneficial. Changing the residence from city to country, or *vice versa*, stopping hard study, using sea-bathing or rowing, and having cheerful company, etc., with assurance of speedy relief, will do much to restore the normal flow. In those cases where the fear of pregnancy seems to be the cause of the suppression, I know of no remedy more efficient than blanks of sugar of milk, with the assurance of the physician that they will certainly bring on menstruation (if the patient has confidence in her physician, and pregnancy does not really exist). Hysteria in these cases is treated as in others, coupled with the proper remedies to relieve the suppression.

Cantharides is sometimes a useful remedy in amenorrhœa, given in low dilutions. The indications for its use in these cases are weakness, irritation of the bladder or urethra, and especial weak sexual strength, absence of all sexual desire, stinging pain in micturition, etc.

CHAPTER IV.

MENORRHAGIA AND METRORRHAGIA.

The excessive loss of blood at the menstrual period is called menorrhagia. In these cases we have, generally, not only an excess of quantity, but also excess in the duration of the flow. It comes on usually without pain; but if the patient is much exposed to cold during the first part of the flow, we may have a temporary cessation, followed by some forcing-down pains to expel clots that have formed in the uterine cavity. The patient is generally much exsanguined, and shows evidences of debility.

In menorrhagia we may have, and usually do have, various complications, such as tenderness over the hypogastrium and one or both iliac regions, a sense of weight in the pelvis, pain in the small of the back, nausea, headache, etc. These symptoms are common, however, to most uterine difficulties, and are not pathognomonic of this particular disease. Here the excess of flow at the menstrual period is almost the only distinctive pathognomonic symptom. If the flow occurs at short, irregular intervals, occurring between the periods of menstruation, it is termed uterine hemorrhage, or metrorrhagia—a difference of name, with no great difference of condition; but it is well always to draw careful lines in medical nomenclature, as it is only in this way that one physician can, by a name, communicate to another the condition of his patient. We must bear in mind that a free menstrual flow is a conservator of health, and realize that nature is a wise physician, and makes no mistakes, and always tries to rectify those of others. Hence, we should be slow to interfere with active agents to suppress the discharge that is, at best, but a

symptom of other ailments, though given, by common consent, a distinctive name.

Etiology.

The excessive flow in menorrhagia is due, in some instances, to overwork; again, from a too sedentary life, causing impoverishment of the blood. An inflamed condition of the uterus, in its sub-acute form, tends to promote this difficulty. This is favored by miscarriages, and we often find this disease as a sequela of abortion. Neglected catarrh of the vagina and uterus also favors menorrhagia. Small granulations in the neck of the uterus, as well as all forms of uterine polypi and uterine fibroids, tend to produce excessive flow at the regular period. The anæmic condition of the blood, as well as great fatigue of body or mind, may greatly aggravate the difficulty. My esteemed friend, Prof. Ludlam,* says: "In the early stages of phthisis we sometimes meet with cases of troublesome, and sometimes dangerous, menorrhagia. As a rule, however, it is more liable to occur in the advanced stages of the disease."

This *does not* accord with *my* experience, and I have taken some pains to obtain the experience of *others*, and they agree with me that, in the advanced stages of phthisis, we uniformly have amenorrhœa, instead of menorrhagia; and we think that if a profuse menstrual flow should be present in any exceptional case of the advanced stages of phthisis, it would probably be due to uterine polypus or cancer. We have never seen this complication of a case of phthisis.

The capillary congestion that is necessary to the production of menorrhagia may be produced from such a variety of causes that we always have to go back of the excessive flow to the undue capillary congestion, and again back to the cause of this congestion.

The cold, that in the first instance produced amenorrhœa,

* "Clinical Lectures on Diseases of Women," R. Ludlam, p. 48.

may secondarily produce menorrhagia, from the irritation which is left in the mucous membrane of the uterus in some instances.

Treatment.

The first point in the treatment of menorrhagia is to enjoin and insist upon absolute rest, in the recumbent posture. This will greatly aid us in the treatment, and without it we will generally fail.

Cold compresses, in the form of cool, wet cloths, applied to the hypogastrium, and frequently changed, and cool water vaginal injections, may be used with benefit in some cases. The tampon in the vagina may be demanded in those cases that resist ordinary treatment, still it will be seldom that we will see cases of such severity as to demand it, unless the cause is uterine polypi, or a single polypus. We are not to expect to very often see cases that demand these severe measures, and, if the history of the case shows us that the flow has been coming on at times in the intervals of the regular periods, we may know that we have something more serious to attend to than ordinary excess of menstruation. The flow should not be arrested simply because it is large, for some plethoric, full-blooded women lose a large amount, and find it consistent with good health. Treatment is only to be used when the general health seems to be seriously affected, or the exhaustion at each flow is so great as to necessitate remedial measures. In the treatment we have also to bear in mind that the excessive flow coming on for the first time may indicate a threatened abortion. The particular condition of the general system, and the local condition of the womb, in each particular case, are to be studied in the treatment of each case. Very often cases, following after confinement or abortion, have a relaxed condition of the uterus and uterine vessels, which require *Secale cor.*, in twenty-drop doses of the fluid extract, given in a drink of warm water, and repeated every twenty minutes till three or four doses have been

taken. This treatment is applicable also in those cases where polypus is present.

This remedy (which to my mind is much preferable to ice in the vagina, or ice to the back or abdomen) may act sufficiently in one dose, and, if so, no more need be given. Should a threatened abortion be suspected, and there be present some labor-like pains, *Secale* 3^x or 6^x will generally stop the contractions of the uterus and moderate the flow.

Viburnum Prunifolium 1^x, given in tea-spoonful doses every half hour, is an efficient remedy in true menorrhagia.

Ipecac, *China*, *Ferrum*, *Nux*, are remedies that are calculated to relieve the case if due to debility, general atony, or anæmia.

Aconite, *Gelsem.*, or *Ars.*, are the remedies to be studied and used, according to the totality of the symptoms, in those cases, of a congestive or inflammatory character, which are acute.

We will do well, in all cases of menorrhagia, to be sure of the nature of the case. A thorough examination is often necessary, though we are justified in omitting it, in recent attacks, in some instances. We find the sponge tent to be of great service in some cases. It acts as an efficient tampon, arresting the flow, and, by dilating the cervical canal, we may find the cause to be a polypus, or small granulations in the neck of the uterus. If granulations, their vitality is destroyed by the tent, and they generally will fall off with the use of very little force, and sometimes with none at all. This effect of the sponge tent is very evident in those cases where it is allowed to remain for eighteen or twenty hours, and another immediately inserted and allowed to remain for the same length of time. The tampon most convenient to be used in the vagina I have found to be the elastic rubber bag, with tube and stop-cock (English or French manufacture). The American rubber has very often disappointed me in leaking the air and collapsing. Of course, the vagina

may be tamponed with old cloths or wads of cotton, but the rubber bag, or colpeurynter, is much the most convenient and desirable.

The use of the colpeurynter, or air bag, is called colpeurysis. Dr. Carl Braun,* assistant physician at the lying-in clinic at Vienna, is the inventor of this tampon. The colpeurynter, as invented by Dr. Braun, consisted of a vulcanized gum elastic bag, fitted into a small, hollow cone of horn. It has since been modified so that the elastic bag is attached to and is continuous with a tube of the same material 18 inches or more in length. To this tube a stop-cock is attached, which retains the air. The length of the tube makes it more easily inflated, and more convenient than the original instrument.

Merc., *Iod.*, *Bry.*, *Cal. carb.*, *Cimicif.*, *Hamamel.*, *Phos.*, *Trillium*, etc., may sometimes be homœopathically indicated in menorrhagia or metrorrhagia. (See works on Materia Medica for special indications.) Uterine polypi, if present, must, of course, be removed.

* "Klinik der Geburtshilfe and Gynækologie," Vol. I, page 126.

CHAPTER V.

DYSMENORRHŒA, OR PAINFUL MENSTRUATION.

Dysmenorrhœa is a term used to signify painful menstruation; but it is not all pain occurring at or about the menstrual period that should be called dysmenorrhœa. Neuralgia of the ovaries is a notable instance; here we have severe pain in the ovaries, one or both; it occurs in some instances only at the menstrual epoch, still is neuralgia, and should be so designated. The true dysmenorrhœal pain is in the uterus, coming on in paroxysms, as a general rule, simulating the pains of threatened abortion, while the ovarian neuralgia is continuous and darting. The throbbing, tense pain is indicative of ovaritis, and is located in the iliac regions.

Authors generally seem to consider that the condition of the uterus in dysmenorrhœa is one of inflammation, either in the uterine muscular tissues or in the internal membrane. I differ somewhat, and claim that more cases of dysmenorrhœa are caused from retro- or ante-flexion, stenosis, or partial atresia of the cervical canal, than from any other causes; though it is true that the inflammation in some cases, without doubt, produces the pain in the expulsion of the menstrual flow. It also tends to the formation of false membrane, that is formed in some cases, and thrown off at each menstruation from the mucous membrane lining the uterus, called *nidation*. Generally, the pain commences several hours, and in some cases two days, before any flow is established. The agony suffered in some of these cases is terrible.

Besides the severe pains in the uterus, we may have, in addition, pain in the ovaries, great tenderness over the hypogastric region, and sometimes this tenderness extends over the entire abdomen. This is the case where there is present

peri-metritis. The poor patient can not sleep or eat. If food is taken into the stomach, it is generally rejected very soon. The headache accompanying these cases is very distressing. Pain in the back is also often a distressing symptom. Cold hands and feet, with great restlessness and an irritable temper, are generally symptoms in these cases.

Dysmenorrhœa is peculiar to women who are sterile or unmarried, except in a very few instances, and in those exceptional cases it is less severe than in the barren woman; for after the uterus has contained a child or fœtus of considerable size, it is more tolerant of the presence of the effused fluid, and the stricture produced in the neck of the uterus by flexions is not so tight. The nervous symptoms are more prominent in some cases than others, but are doubtless dependent upon the temperament of the patient, and are not to be considered as a separate or peculiar form of the disease, if I may so speak, for I consider dysmenorrhœa only a symptom of other difficulties causing these peculiar symptoms.

Differential Diagnosis.

The only troubles likely to be confounded with dysmenorrhœa are, threatened miscarriage and some cases of uterine polypi. The history of the case will generally show, that the menses have been suppressed for a time, wholly or in part, in cases of pregnancy. This suppression, however, may have been months before, and may have continued three or four months, and the flow become again established and appear regularly, though usually too profuse and long continued, till the seventh or ninth month arrives from the time the suppression commenced, or, in other words, till complete gestation would have been accomplished had the fœtus lived. But the history of the case shows that a partial detachment of the placenta had occurred early in the pregnancy, causing the death of the fœtus, but that it was retained in the uterus till full term had arrived.

Such cases may have a history of pain similar to that our patient is now suffering, at a few preceding menstrual periods; but we will note that it was not so, previous to the suppression. Some uterine polypi cause much suffering at the menstrual period. These cases may be recognized by having had easy menstruations at some early period of their lives, generally up to within two or three years, and by physical examination we discover the presence of the polypi, and clear up the diagnosis.

Etiology.

It is probably a fact, that a less number of cases of dysmenorrhœa are cured than of most other ailments peculiar to women. This is accounted for, in my mind, from the fact that I have found the cause of this pain in menstruation to be flexions of the uterus, or stenosis, in many cases. They may be either ante- or retro-flexed; either condition may cause the difficulty. This is explained in the fact that the flexion causes almost the closure of the cervical canal at the point where the flexion is most abrupt. There is generally a point in these cases of flexion where the canal turns almost at right angles. Flexion also tends to produce irritation, tenderness, and abnormal congestion at the menstrual period. I say abnormal, because a slight increase of the turgescence or vascularity of the endometrium is a normal condition at the menstrual epoch.

But when this normal congestion is increased by previously existing increased vascularity, we have, as a result, considerable thickening of the mucous membrane of the uterine canal, and this tends to obstruct more fully the cervical canal at the point where the flexion had nearly closed it. Consequently, when the body of the uterus becomes filled with menstrual flow, the uterus naturally takes on contractile action, and we have the intermittent pains of true dysmenorrhœa. These contractile pains of the uterus that is flexed, tender, and congested, are very severe, and continue, till the

constriction is forced open, and the contents of the uterus is forced out. This consists often of clots (the retention of the effused blood having caused them to form), and their presence adds to the necessity for severe expulsive pains to force them out. So we may see that the process corresponds very nearly to that of ordinary miscarriage, and is often more severe. Again, in the membranous form, the cause of the pain we have, is the necessity of severe enough uterine contractions to rupture the membrane, and peel it off from the intra-uterine surface; this process is termed *denidation*, or *nidation*. The student will readily comprehend the cause of the severe pain previous to the discharge of any menstrual fluid in these patients. In some cases the flow commences moderately, with little pain, and, after a day or so, the pain commences severely. These pains are produced by the contractions necessary to expel the membrane, the blood in the slight amount that has been already expelled having passed out between that portion of the membrane already detached and the intra-uterine surface.

The investigations of Engelmann* show that this membrane is the upper layer of the proliferated mucous membrane in a state of fatty degeneration, that is exfoliated, and thereby a hemorrhage is occasioned; hence we have more liability to the formation of clots in these cases than in normal menstruation. This process is termed *denidation* by Dr. Aveling,† and he compares it to parturition, and terms the membrane thrown off the *nidal decidua*.

Chronic ovaritis may be a cause of pain at this period, producing not only more sensitiveness in the organs, but from slow inflammatory action causing a thickening and toughening of their fibrous coat, and consequently more difficult ovulation. Or we may have a rheumatic condition of the general system, which may so affect the ovaries as to pro-

*Strickler's "Med. Jahrb," page 135.

†Obstet. Jour. of Great Britain and Ireland, July, 1874.

duce painful menstruation; but I am inclined to the belief that in the great majority of cases displacements of the uterus, with some degree of endo-metritis and stenosis of the cervical canal, are the main causes of dysmenorrhœa.

Prognosis.

This must depend much upon the willingness of the patient to submit to proper treatment. As the patients usually feel tolerably well during the interval between the menstrual periods, they are very often disinclined to pursue the necessary treatment. In this case an unfavorable prognosis is the best we can make. But, in case we may have several months to treat the case, the prognosis may be favorable. We are usually justified in prognosing sterility, if let alone, in cases that are severe; with proper treatment we may, in most cases, expect that pregnancy will be possible.

Treatment.

Whoever achieves success in the treatment of this difficulty, may feel that he is equal to the task of treating almost any of the diseases of women, for to be successful, the physician must show power of careful discrimination in diagnosis, decision of character and will, in proceeding to do that for the case which it seems to demand. Perseverance in treatment, proper encouragement to the patient (that he may have her full co-operation), is necessary. This is all important, as it is generally the case that the patient enjoys quite a good degree of health in the intervals between the menstrual periods, and it is absolutely necessary that the treatment be continued thoroughly during these intervals. Much care and judgment need to be exercised in the selection of the remedies, and in the surgical or mechanical treatment used. Hence I deem the skill demanded in these cases equals any that is required in any case of gynæcology. These cases are the more embarrassing on account of their being found

mostly in those women who have either never been married, or have never borne children, and hence are more averse to the making of the necessary vaginal examination, and are much more troublesome to treat, even if they consent to an examination. They are likely to be careless about regular calls upon the physician, and as this class of patients are usually desirous of concealing from the public, and sometimes even from friends, the fact of their having any ailment whatever, they are very annoying, and, as I said before, require all the skill at any one's command to carry them to a successful issue.

Remedies During the Attack.

When called to a case of severe dysmenorrhœa the intensity of the sufferings demands something that will at once relieve the pain and vomiting. For this purpose, perhaps the most efficient remedies are the inhalation of *Sulph. Ether*, or *Chloroform*, with warm foot and hip baths—of course, using the *Ether* or *Chloroform* after the patient has taken the bath, and is nicely wrapped in bed, as anæsthetics are never to be given to any one while in the erect or semi-erect posture. The hypodermic injection of pure water in the arm or limb will sometimes give instant relief, and is preferable to the use of Morphia in any manner.

Sometimes *Puls.* 3^{x} gives relief; again, *Secale* 3^{x}, or *Viburnum* 1^{x}, will be most efficient. *Secale* or *Viburnum* being indicated for those pains that are entirely confined to the uterus, of an intermittent character, while *Puls.* is indicated in cases where the ovary is *also* largely affected.

Cimicif. Rac. gives, usually almost instant relief to the ovarian pains and tenderness, which sometimes continue after the contractile pains of the womb have ceased, and the flow has been established. These remedies, as indicated, will relieve, giving *Aconite*, *Ars.*, or *Bell.*, according to their general indications so well understood, in these cases, which are due,

evidently, from their history, and all we can learn, to an acute congestion of the uterus, which sometimes occurs, and produces severe menstrual colic; but they are not cases of true dysmenorrhœa as generally understood, any more than a slight cold in the head is catarrh. Attacks of menstrual colic, from acute congestion, will be cured with these remedies, the same as such cases are cured where there is no menstrual colic, and we may expect little trouble with this class of cases. If the history of the patient shows the attack to be probably due to acute congestion, we may have no occasion to make a physical examination. The remedies I have indicated will cure the case promptly and efficiently. But the case whose history shows years of monthly suffering, will not be cured with these remedies; we must use other measures and remedies, or have a failure.

If flexion of the uterus is the cause, we will only be able to detect it, in most cases, with the uterine sound. When discovered, of course, it is to be rectified as in other cases of flexions, but in these dysmenorrhœal patients we have more trouble in introducing the sound, as here we will find a narrowing of the neck of the uterus at some point, generally at the internal os. Much patience may be necessary to accomplish the introduction of the sound, and, in some cases, it will be found impossible. The next thing to do, on failing to introduce the sound, is to introduce into the cervix uteri a sponge tent, and follow by another in about six hours, keeping the patient in bed. In introducing the tents press upon them for some minutes, that they may follow the crooked canal, and as they dilate expand the portion that is constricted, and enable us on the removal of the second tent, to introduce the sound into the body of the uterus, and detect the flexion, if one exists; and, if there be no flexion, and we find the uterus *in situ*, we will have prepared the uterus for further treatment in the way of curing the disease of the internal surface of the organ that has caused the

dysmenorrhœa, by exfoliating the dysmenorrhœal membrane, or obstructed the natural outlet of the body of the womb by the congested condition of the endometrium. This diseased condition of the endometrium is usually present and needs treatment in these cases, whether we have a flexion or not. Hence, it will be seen that I consider the use of tents to be very necessary in the treatment of most cases of true obstructive dysmenorrhœa.

The incision of the neck of the uterus, as some recommend, is to my mind very objectionable, and as I have never found it necessary in over twenty years of practice in this line, during which time it has been my lot to treat very many cases, I feel that possibly incisions of the cervix uteri may be abandoned. Incisions, in order to be successful at all, must be followed by dilatation by some means; if not by tents, then forcibly and abruptly, by means of instruments. It seems our Creator has made the cervical canal in such a manner as to be expanded without danger, even to immense proportions, as seen in parturition. In abortion it also has to dilate, which it often does with but little pain.

The sponge tent seems to me to act the most in conformity to the process nature has established; that is, it causes gradual dilatation. Should we incise the neck of the uterus, and simply leave it to heal without any attempt at dilatation, the circumference of the canal will be lessened instead of increased; its dilatability will be diminished on account of the cicatrix left.

From the wounds made by incision we have danger of the absorption of pus or muco-purulent matter, which is abundant in some of these cases. Besides, I see nothing to be gained by incisions, and much greater danger is incurred than with the use of the sponge tent.

Subsequent Treatment.

After a good degree of dilatation of the entire cervical canal is accomplished, I proceed to apply directly to the intra-uterine surface a *Solution* of *Iodine*, making it with five grs. *Iod. Res.*, fifteen grs. *Potass. Iodid.*, to one oz. of water. This should be further diluted with water if it produces any considerable amount of smarting. This is conveniently applied with Palmer's uterine applicator. These applications I repeat once in three days, keeping the cervix dilated by passing a large bougie daily through the cervical canal. Omit the treatment four or five days previous to the time for the commencement of the next menstrual period. Vaseline, or *Bell.* ointment, may be used through the applicator in some cases with advantage.

Internal Medication.

Probably there is no remedy so efficient as *Phos.*, given in the 2^{x} or 3^{x} attenuation twice a day, and continuing the treatment for several months; especially is this efficient in the membranous form of dysmenorrhœa.

Prof. Carl Schrœder, of Bavaria, says:* "The fact that membranous dysmenorrhœa has been observed in poisoning by phosphorus, favors the view that a profound fatty degeneration, even in a normal mucous membrane, may bring about the membranous exfoliation."

Cal. carb., *Graf.*, *Iod. of Merc.*, *Phytolac.*, *Cocculus*, or *Caulophyllum*, etc., may sometimes be of much service, when used in accordance with the totality of the symptoms.

Treatment of Rheumatic Dysmenorrhœa.

In the rheumatic condition of the system we will do well to try the effect of *Bry.* or *Rhus*, *Colch.*, *Kali hyd.*, etc., according to the peculiarities of the case and the homœopathic indications for their use.

* Ziemssen's Cyclopædia, "Diseases Female Sex. Organs," p. 335.

Besides giving *Phos.* in the membranous variety of dysmenorrhœa, we must bear in mind that the exfoliation of membrane is the result of inflammatory action, and endeavor to rectify any cause producing this irritation, and treat the case very much the same as we would if purely a case of chronic endo-metritis.

Remedies Occasionally Indicated.

Bell., Coff., Cham., Coloc., Graph., Plat., Sulph., Ignat., Nux v.

Belladonna is indicated in dysmenorrhœa with flushed face, dullness of the mind, fullness over the eyes, intolerance of light, pain in moving the eye-ball, feeling as if the contents of the pelvis would pass out of the vagina, severe bearing down in the pelvis, etc.

Coff., where the flow is full but painful; loss of appetite, sleeplessness, nervousness, irritation of the bladder, etc.

Cham., where there is colic in the bowels, as well as pain in the uterus; discharge comes in clots, restlessness; breasts are tender and swollen.

Graphites, where there is chilliness, with dull headache, heartburn, constipation before, and diarrhœa after, the menses.

Platina, where the ovaries are enlarged or tender, with extreme nervousness, depression of spirits, severe cutting, labor-like pains, dark-colored menstrual flow, etc.

Sulphur. The catamenia are too profuse, with pain in the small of the back; at times the flow ceases, and again comes on profusely; burning in the vagina, etc.

Ignatia, where the menses are scanty and dark-colored; the pain amounts almost to spasms; palpitation of the heart, faintness, etc.

Nux Vomica. Severe pain in the back, constipation, want of appetite, cramping pains in the abdomen.

CHAPTER VI.

VICARIOUS MENSTRUATION.

By vicarious menstruation is meant the discharge of blood from some of the mucous surfaces other than the uterine, at somewhat regular intervals, accompanied with arrest of the normal catamenial flow. These hemorrhages sometimes take place from the nose, called epistaxis; from the stomach, called hematemesis; from the lungs, called hemoptysis; or from the bowels, either with or without the presence of hemorrhoids. (Leucorrhœa, diarrhœa, etc., also sometimes seem to be vicarious of menstruation.)

These discharges seem to relieve the system, so that the patient suffers much less than she otherwise would from the suppression of menstruation. These hemorrhages, of course, occur at other times and from other causes, and are only considered vicarious menstruation when occurring in connection with suppression of the regular flow. When coming on from other difficulties or diseases, they are ordinarily to be arrested, while in the case troubled with suppression they are rather to be encouraged (within reasonable limits), and viewed as conducive to health rather than disease. The patient is often greatly alarmed at these hemorrhages, until they are explained to her.

These discharges greatly relieve the hyperæmic condition of the circulation induced by the retention in the system of the material usually cast off at the menstrual flow; and, if not relieved in some way, would soon manifest the more dangerous symptoms of congestion of the brain, lungs, stomach, pelvic organs, or bowels. Frequently, in these cases, the uterus appears torpid, showing no increase in size, no

heat or congestion, showing that the fault lies in the normal periodical nerve excitement in these parts, which invites the excited circulation of the blood to them. In other cases, the congestion, heat, and enlargement of the uterus is marked, showing that there is a normal excitement of the circulation; but the flow is absent through some abnormal condition of the endometrium, generally that of thickening, by exudation of a plastic material on its inner surface, causing the obstruction of the flow, from its close adhesion to the interior surface of the uterine mucous membrane. This condition is not of very infrequent occurrence, as a result of mild inflammatory action, as shown by the throwing off of stringy, semi-organized, membranous material, from cases affected with a mild endo-metritis not always being highly enough organized, or not adherent enough, to prevent the menstrual flow, but peeling off and being discharged at the flow and during the interval. This, of course, might as well be explained under the head of Amenorrhœa. In some cases an indolent ulcer on the leg or other part of the body seems to act as a vicarious menstruation, so that the patient is relieved from congestive symptoms resulting ordinarily from suppression. Why it is that in one case the discharge takes place in one patient from the lungs, in another from the stomach, bowels, or nose, we can not explain, unless it be that these membranes are, in the particular patient, in a condition of slight irritation, and the blood oozes through the minute capillaries more readily, on this account, in this particular locality.

Vicarious menstruation has been known to take place from the skin, gums, nipples, etc.* (See *Edinburgh Med. Journal*, 1866; *London Lancet*, 1872; and *Transactions Med. Society Bombay*, 1872.) These instances are, however, of extreme rarity, and are only worthy of remark on account of their possible occurrence in the practice of any physician.

* Barnes on "Diseases of Women," p. 182.

Treatment.

As stated before, the discharge of blood vicariously of menstruation is a relief to the system if within moderation, still it may be so profuse as to constitute a hemorrhage, and be dangerous to life if not restrained. Continual congestions and effusions of blood, occurring in those membranes not normally so affected, may develop serious ulceration, and it becomes the physician's duty to carefully diagnosticate between the discharge which is vicarious, and that which is pathognomonic of disease in the part or organ from which it is effused.

In the case of the vicarious discharge it is advisable to first establish the normal function before doing more than to restrain the discharge within the bounds of moderation. This treatment may be found under the head of treatment of amenorrhœa, and consists of remedies and means to invite the circulation and nerve force to the generative organs. This is accomplished with *Puls.*, *Canth.*, *Macrotis*, etc., the use of warm foot and hip baths, electricity passed through the pelvis, or directly through the uterus, by means of the uterine electrode, exercise on horseback, etc.

But there are cases where menstruation is arrested from causes somewhat out of the ordinary line, like atresia of the cervix, the presence of large intra-mural fibroids, pregnancy, etc. Atresia of the cervix will, of course, be discovered in an attempt to pass the uterine electrode, which must not be done, however, if there is a possibility of pregnancy. The condition of pregnancy sometimes develops vicarious menstruation; but not often. It is well to be on the alert to recognize this condition, as active interference would be likely to induce an abortion. We may, however, seek to equalize the circulation of the blood by warmth to the extremities, and using some effort to restrain the hemorrhages by giving *Aconite* or *Ipecac.* I am aware that these cases are not recognized by

some gynæcologists as vicarious menstruation, on account of the pregnancy present.

If the flow was from the uterine surface or cervix, and occurred regularly each month, it would be *menstruation*, though pregnancy did exist at the same time, and I see no impropriety in calling a flow from other mucous surfaces vicarious menstruation, if it occurs at regular intervals, although pregnancy exists. The treatment must be modified, however, as has been suggested. Some cases of this kind may be so difficult of diagnosis as to baffle, for a time, the most skilled physician, owing to the peculiarities in the particular case; still, the more thoroughly the subject is studied, the less likely will the physician be to fall into errors in treatment.

Atresia of the cervical canal, of course, demands an operation; stenosis requires dilatation. These conditions, as well as those where uterine fibroids are present, must be treated as will be stated under these special heads.

Remedies indicated in amenorrhœa are usually demanded in these cases. (See Chapter III.)

The remedies must act to stimulate strength and activity in the ovaries and uterus in atonic conditions, and to allay irritation when these organs are inflamed.

CHAPTER VII.

INFLAMMATION OF FEMALE GENITALIA.

Etiology.

The female genital organs are probably more subject to inflammation than other parts of the body. This is owing to various causes, some of which I will mention. The most prominent one that suggests itself is cold. The open clothing so commonly worn by women offers little protection to the pelvic organs from severe changes of temperature. Especially is cold injurious at or about the menstrual period. The ovaries, uterus, and vagina are at this period congested, so to speak, though the function of menstruation is a physiological one, and one that is necessary to the health of the female. Still we may speak of the congestion of the parts occurring at this period, and generally a few days previously.

This congestion especially affects the mucous membrane lining the uterine cavity. Cold baths, taken by girls and ladies while menstruating, have often caused inflammation of the uterine organs. I have seen the inflammation of so high a grade from these causes as to endanger life. I have seen it also produce paraplegia, hemiplegia, as well as hysterical convulsions.

Sexual Intercourse, which is resorted to by the lower animals solely for the purpose of reproduction, except in one or two species, is resorted to by man as the most common indulgence of his nature, and is frequently the cause of inflammation of the uterus, and, from the irritation and excitement produced, causes also the effects of cold to be more severely felt.

The reading of lascivious books, the nature of the asso-

ciations of many of the amusements of society, constipation which is due to not attending to the evacuation of the bowels at proper intervals, tend to produce inflammation of the uterus. This is particularly the case with teachers and scholars, who delay the calls of nature for a more convenient opportunity; and they soon lose the inclination to evacuate the bowels, and the retention of the fecal matter causes the hard, constipated stool, requiring straining in its expulsion, producing hemorrhoids, and general congestion of blood in all the pelvic viscera. Constant standing, distress of mind, self-abuse, falls, jolts, heavy lifting, careless management after abortions, or confinement at term, lacerations of the cervix uteri, etc., all tend to produce inflammation. It is a fact to be borne in mind that causes which might produce severe inflammation in one, might not affect another; but this is also true throughout the whole range of physical ailments affecting mankind. Hence, because one woman, or possibly a class of women, may not receive injury from a particular cause, it does not disprove the possibility of others being affected seriously by it.

There is much in the constitution of women, as well as men, to withstand or predispose to disease. The girl of robust parentage, brought up to active exercise suitable for her years and strength, using suitable food and clothing, till she is twenty years of age, will ordinarily endure five times the fatigue that one could endure reared under opposite circumstances, and having parentage broken in health and constitution.

Symptoms.

The term inflammation indicates heat, or burning, in itself, and the term is used in medicine to indicate a high temperature, tenderness, generally swelling of a part, tissue, or organ. This is true of acute inflammation, and is as applicable to inflammation of the female genital organs as to any other part of the body, and no more so.

But we have a sub-acute form of inflammation affecting these organs more frequently than other parts of the body, and these sub-acute forms are characterized by a train of symptoms quite different from those produced by acute inflammation. We will, for convenience, make the following divisions of inflammation as affecting the female genitalia :

1. Acute Inflammation.
2. Sub-acute Inflammation.
3. Chronic Acute Inflammation.
4. Chronic Sub-acute Inflammation.

Acute Inflammation.—This sometimes commences with a distinct rigor or chill; but this is not always well marked, and in some instances entirely absent. This cold stage varies in duration from an hour or two to ten or twelve hours, when reaction comes on, and we have increase of heat, much thirst, dryness of skin, and general symptoms of fever. So far the symptoms might be present in any inflammatory attack, preceded by some congestion, in any part of the body; and even in the various forms of intermittent fever we have a similar array of symptoms as we have in the outset of an attack of acute inflammation of the genital organs in the female. After the lapse of about twenty-four hours we have additional symptoms that characterize this disease, which are not present in ordinary fevers, or in congestive or inflammatory attacks of other parts of the system. These are pain, heat, and tenderness of the vagina and uterus, and, in some cases, frequent desire to urinate, accompanied with pain in the urethra of a burning character. If the ovaries are affected, we will have tenderness, with some swelling, of these organs. These urgent, active symptoms are present in cases of acute inflammation of any, or all of the genito-urinary organs, and are present, I may suggest, also, when the inflammation is caused by specific poison (*i. e.*, gonorrhœal); but, in the acute inflammation of the gonorrhœal case, these symptoms may be three days or more from the time the first intimations are

noted till the full development of the inflammation, when we have also the symptoms of a copious yellowish white discharge from the vagina, with great swelling of the labia majora and minora. But I will not enter more into detail in the matter of gonorrhœal inflammation, as its importance merits an entire chapter, and I prefer to give a full description of the disease under the proper heading, where it will be found in connection with the homœopathic treatment for its cure.

In the acute inflammation caused from colds, exposure, and, I may mention, sometimes the suppression of eruptions on the skin, we have active symptoms, as I have described, and they point to this disease unerringly. There is no chance to be misled. Soon, in addition to the symptoms of heat, pain, tenderness, swelling, etc., just enumerated as affecting the labia, vagina, uterus, ovaries, etc., we have, within two or three days, a profuse discharge, generally acrid in its character, light yellow, or milky, and in no way to be recognized by its appearance from the discharge produced from gonorrhœal inflammation. There is no way at the present day, so far as I know, to determine by its appearance whether or not the vaginal discharge in such cases is gonorrhœal or not. We have to note other symptoms than the discharge, to make up a diagnosis. Of course, gonorrhœal discharge sometimes follows impure connection, and, did we know of this exposure, we might be the more ready to call the disease gonorrhœal. But let the physician be cautious; much trouble might result to him and others by giving such an opinion.

The non-specific inflammation comes on, ordinarily, much more suddenly than the specific; but the symptom of painful micturition is not very prominent unless the disease affects the bladder mainly; in which case we have none of the tenderness, heat, and pain in the vagina, nor much of the vaginal discharge just mentioned as occurring when the vagina has been inflamed for any length of time. Hence, this case would

be diagnosed as cystitis, and not as acute inflammation of the genito-urinary organs. We will also have nausea present, in many instances, produced by sympathy with this acute inflammation of the pelvic organs in the female.

Treatment.

The treatment of acute inflammation (non-specific) should, in the first instance, be rest for the entire body, warmth to the extremities, a warm full bath, or sitz bath, for ten or fifteen minutes, and when taken from the bath the patient should be rubbed dry, and well wrapped in warm blankets; and repeat these baths once a day as long as the urgent, active symptoms show themselves.

The first remedy to be given, and I may say the last also, in many cases, is *Aconite nap.* This remedy alone usually controls all these symptoms, and will ordinarily carry the case through to a favorable termination, unaided by other remedies. We will very often find this remedy to cut short every symptom, and restore to a state of health almost as if by magic, stopping the disease before any discharge has made its appearance. If we were so fortunate as to be called in the first stage, or rather when we had congestion present, coldness, etc., I would prefer *Gelseminum* or *Arsenicum alb.*, the *Ars.* being indicated if nausea and vomiting, with thirst, were prominent symptoms, otherwise give *Gelseminum.* When the second stage is established give *Aconite.* After the acute stage is passed and we have not succeeded in curing the case, and it passes into a chronic, active inflammation, or a chronic sub-acute form, I would use other remedies, which we will designate under the treatment for those conditions.

Sub-acute Inflammation.—The term sub-acute inflammation indicates a grade of inflammatory action that is more mild in its symptoms than acute inflammation. The sub-acute form of inflammation may come on so insidiously as to be scarcely noticed until the disease is thoroughly estab-

lished and the patient is much broken down in health, and perhaps consults the physician on account of this general debility, or under the impression that the difficulty is something entirely different from what is really the matter.

Etiology.

The causes of this disease are somewhat similar to those which produce active inflammation, but owing to the good constitution of the patient, or the small amount of exposure, a very acute inflammation is avoided, and in its stead a sub-acute form is established. The sub-acute form is often caused also by the use of cold vaginal injections to prevent conception, and by acid injections for the same purpose. Frequent child-bearing is also a fruitful cause of this sub-acute form; neglect of cleanliness, as well as too frequent bathing, may produce the disease. The wearing of hard vaginal pessaries, as well as rough, brutal copulation by the husband, or promiscuous sexual intercourse, sub-involution of the uterus, and lacerations of the cervix uteri in confinement, also tend to cause this disease.

Symptoms.

The symptoms of sub-acute inflammation may not manifest themselves in the parts affected to any great extent, and in some instances there may be no symptoms that point directly to the difficulty, unless we are aware of the fact that the symptoms indicating sub-acute inflammation are generally in some part of the body somewhat remote from the pelvis, and are caused by reflex nerve action. True, we may sometimes have slight tenderness of the vagina or os uteri, or slight tenderness in the ovarian region; but often we have no tenderness. Sometimes we have a slight vaginal discharge and sometimes none. On making a physical examination we find the vagina warmer or colder than natural. The secretion instead of being oily and slippery to the feel is often tenacious, and the odor of the vaginal secretion

is nauseous. The os uteri is found enlarged, the length of the uterus, as found by introducing the uterine sound, indicates considerable increase of size, sometimes measuring, from os to fundus, four or four and a half inches. Some tenderness is found to be present in some cases, and in rare instances a complete hyperæsthesia of the parts is caused from sub-acute inflammation. Still in these cases of acute sensibility, we have absent those general symptoms of extreme heat, swelling, and general fever we have in the acute form. Sometimes we have hot flashes, as the patient describes them.

The symptoms that we may expect the patient to complain of in sub-acute inflammation of the genital organs in the female are backache, pain in small of back, sometimes at the extremity of the coccyx, pain under the left breast, palpitation of the heart, various dyspeptic symptoms, tympanites, etc.; with pain in the occiput, heat in top of head, sciatic pains, general lassitude, weakness of the limbs, sometimes a feeling of weight in the pelvis, sometimes not. It will be appreciated that these symptoms, though more moderate in their action, are nevertheless wearing on the patient, and though the disease might kill slowly, it might kill just as surely as the more active form of inflammation.

This sub-acute form of inflammation, when affecting the ovaries or uterus, is one of the most prominent causes of tumors in these organs. Generally we have sterility as another symptom of this disease, and it will probably continue till the disease is cured; and possibly barrenness may result, and remain after all other evidences of disease have disappeared.

Treatment.

Aconite, so useful in the acute form of inflammation, is of little use in the sub-acute; here we need *Bry.*, *Bell.*, *Ars.*, *Ars. iod.*, *Merc. iod.*, *Rhus*, *Ignatia*, *Nux*, *Puls.*, *Sepia*, etc. These should be selected according to the homœopathic indi-

cations in each particular case. (Consult works on Materia Medica.)

As to local applications, I will say, my experience justifies the use of some local treatment; but not such as has been in use by all gynæcologists of the old school, and, I blush to say, some of our own. I refer to nitrate of silver, nitric acid, strong chromic acid, tincture of iodine, leeches, etc., *ad infinitum*. We discard all these, in treatment of these diseases. I sometimes, however, apply the *Solution of Iodine* locally to the os externum and internum, and even to the intra-uterine surface. This solution is to be prepared with water and the addition of *Kali iodatum* in the proportion of three grs. of the latter to one of the former. I usually use the strength of about three or five grs. to the ounce, applied with a camel's-hair pencil every three days. Some cases of sub-acute inflammation of uterus and vagina are greatly benefited by the ball of cotton (to which is attached a string for its easy removal), saturated with equal parts of *Tr. Hydrastis* and *Glycerine*, placed in the vagina well up against the os uteri. It may be noticed that I am not entering into the description of the special inflammations or their treatment, this chapter being intended as general in its application to description and treatment. A more minute description of the treatment of special inflammations of particular parts may be found under the chapters on Vaginitis, Metritis, Ovaritis, etc.

Warm Water.—The warm water vaginal injection and warm sitz bath are quite generally useful, and, I believe, can in no instance do harm in any form of pelvic inflammation, when used properly.

Chronic Acute Inflammation.—There are some cases of inflammation of the pelvic organs that go on actively for a considerable time, having a tendency to progress to the extent of the formation of an abscess or ulceration, in spite of the most active measures we may use to subdue them. The allopathic profession have tried the antiphlogistic treatment, have

bled and leeched, physicked, and given remedies the most powerful in depressing the activity of the circulation; and still active inflammation has continued till abscess resulted. The homœopathic treatment of active inflammation has not always been successful, though much more frequently so than the allopathic. Hence, we have a class of cases to which it seems to me appropriate to apply the term chronic-acute inflammation.

Symptoms.

The exact time at which an acute inflammation becomes chronic, we are not able to specify in hours or days. The symptoms will be a better guide to the proper nomenclature to be applied than the expiration of any particular length of time. I am inclined to draw the line at such time as the general symptoms of fever, general heat, and extreme rapidity of the pulse subside in part, and, if it be a week or so after the onset of the active symptoms, and still we have the tenderness and heat of the pelvic organs remaining, the vagina tender to the touch, the labia swollen, tenderness of abdomen in *hypogastric* or *iliac* regions, the patient, unrelieved by proper medication, continuing to present these symptoms with depressed general strength, pulse weak, though often as high as 100 to 120 per minute, temperature indicating from 101° to 103°, tongue generally coated light brown or brownish white, with red tip and edges, papillæ elongated, we denominate the case chronic-acute inflammation. Following on in the progress of the disease, we have, in the next stage, those symptoms that are indicative of the formation of pus; such as slight rigors, throbbing sensation in the pelvis, some increase of heat, etc. On vaginal examination, we may feel fluctuation, usually in the posterior portion of the vagina, the os tender and swollen, the heat of vagina much above the natural temperature, generally accompanied with a copious muco-purulent discharge from the vagina. The patient complains of great pain at stool; the most careful manipulation causes great

suffering. We do not wish to be understood as saying that all cases of chronic-acute inflammation always result in abscess; but we say that there is a great tendency to the formation of abscess. We also have a class of cases which may be considered *chronic* in that they are subject to frequent attacks of active pelvic inflammation, they being really cases of sub-acute inflammation, that, owing to cold or exposure of some kind, has caused the acute for a time to supplant the *sub-acute*, then under treatment; ordinarily, by the natural restorative powers of nature, active inflammation subsides, and leaves the sub-acute form in its stead, there being enough irritation remaining to attract towards the parts all the impurity of the blood, retard and retain all the degenerated blood corpuscles, thereby aiding in the development of malignant disease, or, perchance, only hypertrophy or areolar hyperplasia of the uterus. The most frequent seat of abscess, when it does form from general pelvic, chronic, acute, or active inflammation, is in the cellular tissue, generally posterior to the vagina and uterus. I can only account for this from the fact that the position of the patient on the back, with the thighs semi-flexed on the abdomen, which is the position usually voluntarily assumed by the patient in acute pelvic inflammation, allows the uterus, with weight of bladder and its contents, to press more heavily against the cellular tissue posterior to these organs, and tends to retard more fully the circulation there, and, of course, on this account, gives greater tendency to the formation of abscess in this locality than in the anterior or lateral portions of the pelvis. Abscess forming anterior to the uterus, between it and the bladder, is usually caused from circumscribed inflammation in this particular location, induced by anteversions of the womb, direct injury, *peri-metritis*, etc.

Treatment.

We must not allow the bowels to become charged with fecal matter, and thus press upon the inflamed tissues. The

most suitable means to prevent this is the regular daily use of warm water enemæ, with plenty of soap dissolved in the water. Never let the solicitations of the patient or friends induce you to allow the administration of purgative medicines. The increased peristaltic action of the bowels that they would occasion would be more injurious than to allow the bowels to remain inactive. Still there is no need of their remaining overloaded, and it is better to insist on their being moved with enemæ than to neglect them. Warm vaginal injections of castile-soap and water, used several times a day, with warm fomentations with hop-bags applied to the perinæum and over the hypogastrium, are to be used, with warmth to feet and sustaining diet of beef-tea, egg-nog, and the like. Milk will be well borne and easily digested, if to it is added a small quantity of salt. Let this hint be ever remembered. Milk often disagrees with the stomach of patients because of too much acidity there; but if we correct this acidity with a little lime-water or a little salt added to the milk, we chemically overcome the acidity, and our diet of milk is very acceptable and satisfactory. Should all means fail of accomplishing resolution of the inflammation and absorption of the matter, we may have to evacuate the abscess. This is much better practice than to allow it to go on to spontaneous evacuation, as it may form an opening in an inconvenient locality, and, besides, be much more difficult to heal than when evacuated artificially. As to methods of operating, we refer the reader to the chapter on Cellulitis, where he will also find some general directions as to the after treatment of the abscess.

The remedies most frequently indicated are *Bell.*, *Merc.*, *Hyos.*, *Bry.*, *China*, *Sepia*, *Cimicif.*, *Can. ind.*, and *Hamamelis*, internally and externally.

Chronic Sub-acute Inflammation—*Description.*—We find in practice that there are cases where there is present a sub-acute inflammation, not only of the cervix uteri, but also of the endometrium, the ovaries, bladder, vagina, and cellular tissue

surrounding the pelvic organs as well, often implicating the peritonæal covering, so that it may be considered, as a whole, under the name of chronic sub-acute, pelvic inflammation. The patients in these cases may be able to go about their usual avocations a considerable part of the time, though suffering much pain. This pain is in the organs themselves, and also in the back, loins, thighs, occiput, top of the head, and under the left breast. Digestion is generally impaired, much flatus in the stomach and bowels is generally present; and palpitation of the heart and fainting spells are frequently symptoms of this difficulty.

Etiology.

The cause is often obscure. These cases generally come under our care with a history often so long that we need to make a special appointment of an hour to hear it, and, when we learn it all, we generally find that the array of treatment, and the names of different physicians who have from time time treated the case, will occupy no small part of the recital; and as several years have generally elapsed since the patient has been a sufferer, we often find it extremely difficult to decide what was the cause of her trouble in the first instance. Sometimes it is clear that a miscarriage, or confinement badly managed, was a prime cause, in other cases that a cold taken and neglected at the menstrual period seems to have laid the foundation for the long train of sufferings that the patient has endured. Again, injudicious treatment, especially with pessaries, caustics, frequent cold baths, the continuous use of cathartics, etc., seem to have kept up the irritation. Again, unsatisfied sexual passion, as in the case of those ladies who have married men many years their senior (whose sexual vigor was inadequate to satisfy the wife, though sufficient to excite her); entire continence, in cases of the unmarried, at ages ranging from thirty to thirty-five years, has seemed to me to tend to pro-

duce this condition. My experience would lead me to believe that the two latter classes of ladies are rather more subject to this difficulty than any other. This condition may be, in some instances, caused by uterine displacements and the accompanying ovarian displacements, producing irritation of the organs themselves and the surrounding parts as well.

Diagnosis.

In these cases it is not hard to see that the patient is ill, as the constitutional disturbance generally present will clearly indicate it; and, did we fail to see at a glance that something was the matter, the patient will not long allow us to remain in ignorance that she is a great sufferer. Doubtless these patients have much real suffering, but the gravity of the prognosis should not be measured by the extent of the patients' complaints, as we would be led to believe from them that dissolution was imminent. They do not always, however, refer their sufferings to the part diseased, but often to the stomach, back, or head, and frequently to the liver, which does become torpid in some instances, it is true, by reason of the depressed nerve strength of the system, tending to torpidity of the glandular system in general, thereby producing a condition of imperfect secretion and excretion. This tends to emaciation, and to produce that swarthy, yellowish color of the skin we so often see in this class of cases. The long train of symptoms produced from dyspepsia—the depression of mind, the unrest, the dissatisfied disposition—will lead us to be on the alert to investigate the condition of the pelvic organs. The examination will disclose similar symptoms as in case of sub-acute inflammation; and these, conjoined with the grave constitutional symptoms just mentioned, together with the great length of time the patient has been in ill health, will give us reason to diagnose the ailment, chronic sub-acute inflammation. We will generally find hypertrophy of the uterus in

these cases, though occasionally in the patient of fifty years of age and upwards—sometimes in those of thirty-five or forty years of age, who have remained virgins—we have an atrophied condition of the organ; but in the case of atrophy we generally have increased sensibility, amounting to great tenderness. The ovaries are usually enlarged and tender, sometimes only one is affected; if so, it is generally the left. There is a sense of weight and bearing down in the pelvis while in the erect posture. The chronic yellowish leucorrhœa, often acrid, is frequently a persistent symptom. Pain in the small of the back or in the sacro-iliac articulation, sciatic pains, burning in palms of hands and soles of the feet, heat in the top of the head, palpitation of the heart (though the rhythm remains normal, and no abnormal sounds are to be observed by stethoscopic examination), tenderness in epigastric region, coated tongue, loss of appetite, restless sleep, bad dreams, etc., are symptoms we find in most cases. Chronic constipation is almost always present; spasmodic stricture of œsophagus, and the globus hystericus, are often complained of. Paraplegia, of almost any part of the body, may result from this disease. The menstrual function is usually deranged in those ladies who have not passed the climacteric period. Sometimes we find scanty and sometimes profuse menstruation, sometimes too frequent and sometimes delayed menstruation. The sympathetic symptoms are almost endless, and when we find a lot of obscure symptoms in a patient, who has also a considerable number of the symptoms just enumerated, we are generally right in supposing they are caused from this chronic sub-acute inflammation of the pelvic organs. Mucous polypi, hydatids, and, in fact, all the forms of polypi, as well as fibroids of the uterus, ovarian fibroids, and fibro-cysts and vaginal cysts, are caused largely, in my opinion, from this condition of chronic sub-acute inflammation. Acute inflammation may attack a case previously suf-

fering from chronic sub-acute inflammation, and the sub-acute is often left after the subsidence of the acute form.

Treatment.

First, I will recommend in these cases, as of the utmost importance, some form of abdominal supporter, to lift and hold up the abdominal organs, so that they do not press upon the irritated pelvic organs. I can not be too emphatic upon this point. Without the aid of the abdominal supporter, I would not expect to be successful in curing these cases, and, with its use, we have trouble enough. I generally use my *Improved London Abdominal Supporter* (see plate No. 12), or one made of silk and elastic; but every physician should use judgment and ingenuity in adapting the support to each individual case. I think no set rules need be laid down, except to use a support that is efficient, and at the same time comfortable to the patient.

Where we have severe peri-metritis in the case, we may have to enjoin perfect rest in the recumbent posture, till we get this condition somewhat relieved by remedies; but very long-continued decubitus is objectionable, in that it tends to debility, and seriously interferes with the process of digestion. It is better, therefore, to hold up the abdominal organs with suitable support, and not only permit, but enjoin, exercise of a moderate character.

I am so impressed with the necessity of exercise, and at the same time keeping the tender parts from suffering irritation from the superincumbent weight of the abdominal organs, that I prefer the abdominal supporter to all the remedies that can be given in the treatment of this disease. Doubtless remedies are beneficial, and do cure, when we have suitable conditions and accessories. The frequent use of the tepid, salt water, hip bath is very beneficial. Let the patient sit in the bath ten or fifteen minutes, twice a day. Sponge

off the hips well with alcohol and water, equal parts, after each bath. The following preparation of watery *Solution of Iodine* may be applied freely over the os every two or three days, and also to the intra-uterine surface in obstinate cases. If it becomes necessary to apply it to the endometrium, it will be generally necessary to dilate the cervical canal with a sponge tent or two, and then use a soft brush or the uterine applicator to apply it.

℞.—Iodine, res., grs. v.
Potass., iodide, grs. xv.
Aqua, ʒ 1 ♏.
Et. sig. *Solution Iodine.*

This solution can be further diluted with water to any extent desired. We can not do this with the *Tr. of Iodine.* When much water is added to the *Tr.*, the solid *Iodine* is deposited and becomes a caustic. The dilution of *Tr. Iodine* with alcohol is objectionable, in that the alcohol smarts too much. The use of *Tr. Iodine* to the os uteri, or applied to the intra-uterine surface, is not desirable because of its caustic properties. The usefulness of the solution of *Iodine*, as I recommend, is to promote absorption of the serous infiltration in the tissues, which is so commonly present, and to allay the unhealthy action we call by the name of chronic sub-acute inflammation. The daily use of this remedy is *not* beneficial. It would be like the administration of the properly selected homœopathic remedy in too low an attenuation. It might aggravate the difficulty. The introduction of this solution directly into the substance of the uterus or ovaries, in cases of enlargement that resist all other measures, is useful and to be recommended. This is accomplished with a large syringe with a long, stout tube. (See syringe for injecting uterine fibroids.) This may be repeated once in three or four days for two weeks, when it is best to wait two or three weeks and watch results. There is, perhaps, no one remedy that exerts so beneficial an effect upon this disease as *Phy-*

tolac. dec., in the 1^{x} or 2^{x} attenuation, given every three or four hours.

China, *Ars. iod.*, *Bry.*, *Nux*, *Sepia*, *Cimicifuga*, *Bell.*, *Cal. carb.*, *Ignatia*, *Cantharis*, *Hepar sulph.*, *Cham.*, etc., are the remedies to select from in each particular case, as the totality of the symptoms seem to indicate. If we have uterine hemorrhage, or absence of menstruation, polypi, cysts, or tumors, we must treat them on the principles laid down under these diseases, which will be treated of specifically under their proper heads. Attention to the administration of suitable diet, that is nourishing and still easy of digestion, is always to be remembered. Cheerful company, change of scene and climate, will sometimes aid materially; and, if the patient has lived in a malarious district, we must recollect how much this tends to lower the strength of the nervous system, and produce a condition of chronic congestion, and apply our remedies accordingly.

CHAPTER VIII.

METRITIS.

The term metritis signifies inflammation of the uterus as a whole, including its muscular tissue, serous covering, lining membrane, and sub-mucous and cellular tissues. In a case of metritis we have, then, peri-metritis, endo-metritis, and cervicitis combined. There is generally sympathetic inflammation of the ovaries and broad ligaments in a case of metritis. The inflammation may extend to all the pelvic and some of the abdominal viscera, or it may remain confined to the uterus. When the pelvic cellular tissue is invaded by inflammation, the disease is called cellulitis, which may also complicate a case of metritis.

Generally, we have an active inflammation to contend with in these cases, which will require skill and firmness in treatment, though the diagnosis is easy. The disease in its acute form runs a rapid course, either to destruction of the patient or ends in restored health within a few weeks, and sometimes in a few days. When the disease extends to the abdominal organs, the case is grave. Puerperal metritis I will not discuss at this time, as a separate chapter is required for its full explanation. It being best discussed in connection with puerperal peritonitis, and having so much in it dependent upon the condition of the lying-in state, I prefer to speak of it separately. I will, however, include in this chapter inflammation of the uterus following abortion, which is somewhat allied to puerperal peritonitis, with much less of involution requisite in the uterus, but, at the same time, perhaps the more dangerous of the two. The fatality in metritis following

abortion I will explain in this chapter, as it is more like the cause which produces mortality in ordinary metritis.

Diagnosis.

The diagnosis of metritis, as I mentioned before, is not difficult. The patient complains of great pain and heat in the uterus. There is soreness and tenderness of the entire organ. Generally, the acute attack commences with a chill, or at least chilly sensations, followed by a fever, often of a high type; generally some nausea, and, in some instances, frequent vomiting. The fever continues, or intermits for a short time, and returns as severely as ever; the pulse is fine and wiry; tongue generally coated white, sometimes white or brown coat in center of tongue and red around the edges; enlarged papillæ here and there project through the coating of the tongue, and are extremely red; considerable headache and backache is complained of; constipation is common, though diarrhœa is sometimes present. There is little or no tenderness of the vagina in the recent uncomplicated case, but it feels hot to the touch, and the uterus is found hot, swollen, and tender. Pressure made just above the pubis causes much pain. As the disease progresses the tenderness extends over the lower abdomen, showing peritonæal complication. In this case (peri-metritis) gentle pressure over the hypogastrium produces pain. It is to be distinguished from enteritis in that we require deep pressure to produce pain in the latter disease.

There is a profuse discharge of matter, mingled with streaks of blood, in the severe form of this disease, after it has lasted a few days. The introduction of the uterine sound, and sometimes even digital examination, produces a free flow of pure blood, even if gentleness is used in the examination, owing to the extremely congested condition of the lining membrane of the uterus, and also that portion of the vaginal membrane reflected over the neck in the vagina.

The sub-acute chronic form of metritis I will speak of as areolar hyperplasia of the uterus. Strictly, any inflammation of the uterus is metritis; but special names are given to the disease when only a portion of the uterus is affected. Some writers divide metritis into two forms,—that which affects the cervix mainly, terming it cervical metritis; and that which affects the fundus, giving to it the name of metritis. In chronic cervical metritis we have a mild inflammation of the sub-mucous tissue, which first tends to effusion in this tissue of a fibro-plastic material, which organizes after a time, to produce the indurations of the os found in these cases, if of long duration. To what extent the muscular tissue is involved in chronic metritis we are unable to say, but probably very slightly; and we have no evidence, in most cases, that the peritonæal coat is much affected, except in cases of the acute form of this disease.

In metritis of an acute character there is usually considerable tympanites; but this does not distinguish it from inflammation of either of the internal female genital organs, or of the cellular or peritonæal tissues, as this symptom is common to all of them, both in their acute and chronic forms. Acute metritis may result in hypertrophy, softening, or gangrene of the organ, but usually, under homœopathic treatment, terminates in resolution.

Etiology.

Acute metritis results from cold taken at the menstrual period, first causing arrest of the flow, secondarily, inflammation; or it may attack a lady who has had some operation performed upon her for the removal of a uterine polypus or has had the sponge tent used without having taken suitable care of herself; or it may be caused from hard work and some exposure while very warm; or it may result from excessive coitus, or cold vaginal injections, or the use of instruments to prevent conception or produce abortion; or su-

pervene on a chronic endo-metritis or endo-cervicitis; or it may follow an abortion, from want of care, and rising too soon, with exposure to cold; or from a retained placenta, or a part of one; or a cold taken at this time; or from lacerations of the cervix uteri in labor.

After a miscarriage or premature labor, women are liable to be very careless, as they imagine little care is necessary. This want of care and caution tends to produce the acute attack of metritis. The retroverted state of the organ predisposes to inflammation, especially the chronic variety; retroversion or retroflexion sometimes exists in girls, caused from jumping or a severe lift, and as puberty comes on the uterus becomes unduly congested, and an inflammatory condition is set up. This gives rise to severe suffering at the menstrual period, and is often a cause of the non-appearance of the flow, although monthly pains come on with regularity, and the general health is much affected. Constant standing, as in case of clerks and teachers, is frequently a cause of the sub-acute inflammation, which readily becomes acute and active from taking a cold, as this class of women are likely to do from exposure in all kinds of weather.

Treatment of Acute Metritis.

The first requisite in treatment is perfect rest in the recumbent position. If there is any peritonæal complication, placing the knees and thighs in a semi-flexed position gives some relief. The warm sitz bath, warmth to the feet, warm wet compresses over the hypogastrium, are all beneficial. *Aconite* should be given till the pulse is under control, becomes soft, and the general fever subsides; after which *Bell.*, *Bry.*, *Sepia*, or *Sulph.* are frequently indicated. Injections of *Hydrate of Cloral* into the vagina are useful in soothing the irritation, tenderness, and pain. Do not be tempted into giving allopathic doses of *Morphia* or *Opium*; though they give temporary relief, they derange the action of the stomach

and bowels, arrest healthy secretion, benumb the system, and prevent the proper action of other remedies.

The same remarks apply with equal force to the hypodermic use of *Morphia.* Its use has become shamefully frequent with some practitioners, and should be discountenanced, because we can relieve our patients in a short time without it; and because it so seriously interferes with the natural process of digestion and assimilation; and, worst of all, establishes in many the opium habit. The alarming increase of the habit of opium-eating in this country should cause us to be active in suppressing it, and careful not to aid in its spread. The import duties on opium paid the United States government for the year ending June 30, 1877, were $1,778,347. This gives some idea of the great amount of the drug consumed by opium-eaters in the United States.

Cool lemonade is a means of great relief to the fever, and is much relished by most patients. Cold water may be drank with freedom in small quantities, often repeated. The diet should be very plain, consisting of gruel of corn or oatmeal, toast, with a little milk. The entire surface of the body should be frequently sponged with tepid water. Cathartic medicine must be positively forbidden, and tepid soap and water enemæ used to move the bowels, in case of want of action in them. I speak of this, not that I expect any homœopathic physician will prescribe a cathartic in these cases, but knowing that we sometimes have patients who have previously had allopathic treatment, and that they may take a cathartic without asking the physician's advice.

From the swollen condition of the uterus and its pressure against the rectum in these cases, as well as some degree of irritation of the bowel from the spread of the active inflammation in the uterus, the patient feels a constant ineffectual desire to evacuate the bowels, which tempts her and her friends to use a cathartic. Hence, I make the suggestion to the student to forbid them, unless he knows his patient well

enough to be sure she will not take them unknown to him. The enema of water will unload the rectum if any fecal matter is lodged there; and, besides, it serves to soothe the irritation in the bowel, while the cathartic increases the irritation, and may change a mild case into one of great severity.

Remedies.

In addition to *Aconite*, *Bryonia*, *Bell.*, *Sulph.*, and *Sepia*, already mentioned, *Verat. alb.*, *Verat. viride*, *Ignatia*, *Hyos.*, *Puls.*, *China*, etc., will be sometimes indicated. (See works on Materia Medica for indications.)

Treatment of Chronic Metritis.

The student is requested to read the treatment of endo-metritis, as being largely applicable to cases of chronic metritis, excepting some complications more likely to arise in metritis than in endo-metritis. (Also, see Areolar Hyperplasia of the Uterus.)

Complications in Metritis.—In metritis we are liable to have some inflammation of the bladder as a complication. This is due, in some cases, to the pressure of the womb upon the bladder, from its increase of size, and sometimes to a partial ante-flexion or retro-version of the organ. In other cases, a continuation of the inflammation from the peritonæal covering of the uterus to that covering the bladder, and thence to the muscular, and even the mucous, lining. This gives rise to a desire for frequent micturition; in fact, we may have all the symptoms of cystitis, including a great amount of mucous discharge, which adheres to the bottom of the vessel with great tenacity. I know of no better remedies for this condition than *Can. ind.*, *Cantharides*, *Uva Ursi*, *Acon.*, *Bell.*, or *Cubebs*.

Tendency to Dropsy.—In some cases we have a tendency to dropsy; but it is generally manifested as ascites. This is produced from the peritonæal irritation causing an effu-

sion of serum into its cavity in excess of what is normal. The student will understand that, in the healthy condition of the peritonæum, a small amount of serum is thrown out in its interior to lubricate it, and we may readily see how an irritation of the membrane may cause an excess of this secretion; and this accumulation of fluid in the cavity of the abdomen is termed ascites.

Ars., *Merc. iod.*, *Digitalis*, *China*, *Apocynum*, etc., are the remedies to be studied for this complication.

Cellulitis as a Complication.—General pelvic cellulitis may complicate these cases; for the treatment of which see chapter on Cellulitis.

General Effects of Chronic Metritis.—It is readily understood how the increased weight and size of the uterus would tend to produce displacements of the organ. In connection with displacements we would have, not only the reflex symptoms in ordinary displacements, but they are likely to be intensified, from the fact of having the irritable condition of the organ, produced by the sub-acute inflammation, in addition to the ordinary nervous effect in displacements. Hence, we are more likely to have hysterical spasms, a greater amount of brain symptoms, more derangement of digestion, etc., than in ordinary recent displacements without metritis.

The Eyes are sometimes affected, so as to produce various forms of amaurosis, and sometimes much inflammation, as a result of these conditions of the uterus. The oculist needs to be thoroughly conversant with these facts, as otherwise his treatment would be calculated to give, at best, only temporary relief.

Sterility, Abortion, Etc.—Sterility is a common result, though in rare instances, where the irritation is slight in the endometrium, pregnancy may take place; but as the uterus enlarges in pregnancy, it is liable to contract (owing to its irritable condition), and expel the fœtus prematurely.

Copulation Injurious.—Copulation should be interdicted in these cases, as it can hardly be otherwise than harmful by producing greater irritation, temporarily at least; and as conception is likely to be followed by abortion, it is better it should not occur till a year or so after the patient appears well; otherwise we may have a relapse.

Tumors.—Metritis tends largely to the growth of tumors of the uterus, especially fibroids and fibrous polypi. It also tends to the development of cancer of the organ.

Menstrual Derangements.—We also have menstrual derangements in metritis. More frequently than otherwise the flow is increased in duration, quantity, and frequency. This drain upon the system, in connection with the excessive leucorrhœal discharge and the pains she has to endure, with the poor nourishment she gets by reason of the disordered stomach generally present in these cases, tends to seriously exhaust the patient to an extent which may threaten her life.

The development in the uterine cavity of vegetations of the endometrium, hydatids, or polypi, or granulations of the cervix, may cause this hemorrhage; and it may be best to at once insert the sponge tent, dilate quite fully the cervix, and ascertain what the trouble is, if possible, in chronic cases, where uterine hemorrhage is present. The tent will temporarily arrest the flow, and aid us in finding out what the real trouble is in the case.

Remedies in Metritis.

Remedies necessarily take a wide range in cases of metritis, on account of the various conditions present and the various constitutions of women. We have mentioned a few remedies in connection with the treatment, and will add some few indications for remedies in a more compact form.

Aconite.—Fever, wiry pulse, dry skin; nausea; great tenderness of uterus, fear, restlessness, and despondency.

Bell.—Dull, heavy headache; tenderness; pain in forehead just over the eyes.

Bry.—Stitches, cutting pain, fever, pulmonary complications.

Cal. Carb.—Light complexion, with profuse leucorrhœa; general irritation of the mucous membranes; scrofulous patients, with leuco-phlegmatic temperament, cold feet, vertigo, fear of impending evil, supra-orbital neuralgia, sour taste in the mouth, involuntary emissions of urine, bearing-down pain in the uterus; especially useful with fleshy people.

Ferrum.—Menorrhagia in women with red face; great weakness; menses stop and return again.

Gelsem.—Hysterical symptoms; hyperæsthesia of a part of the body; tendency to hemiplegia; confusion of the mind; sleeplessness; hysterical spasm; fever without thirst; the fever intermits; great nervous exhaustion.

Graphites.—Profuse leucorrhœa, coming in gushes; in ladies inclined to obesity, affections of the ovaries, severe bearing-down pain, constipation, the leucorrhœal discharge is tenacious, excessive sensitiveness to cold, etc.

Ignatia.—Uterine cramps and stitches; chlorosis; much pain in rectum; excessive flatulency; incontinence of urine; restlessness; changeable mood; hysterical manifestations; excessive yawning.

Borax.—White, thick leucorrhœa; menses too profuse and too frequent.

Cimicif. Rac.—Chorea; great pain in the uterus or ovaries; tendency to rheumatism; has hysterical tendencies; rheumatic or neuralgic pains in the uterus.

Caulophyllum.—Insomnia; paraplegia; atony, and relaxed condition of the uterus; hysterical spasms; irregular menstruation; excessive uterine hemorrhage.

Carbo. Veg.—Great weakness; tympanites; cardialgia; eructations of glairy mucus; acrid leucorrhœa; heat, redness, itching of the labia and vulva; voluptuous thoughts.

Conium Mac.—Swelling of the breasts; stitches in the breast, mostly at night; induration of the cervix uteri, with sharp pain in the part; acrid leucorrhœa; prolapsus uteri.

Colocynthis.—Flatus; rolling pain in the bowels; agonizing pain in the bowels; blood flows from anus; urine is thick, fœtid, scant; restlessness, with great anxiety; sciatic pains.

Verat. Viride.—Congestive state of the pelvic organs; tenderness of the uterus; fever; heat; restlessness; palpitation of the heart; local or general hyperæsthesia.

Verat. Alb.—Hyppocratic countenance; excessive sexual passion; tendency to diarrhœa; despair; hysterical or puerperal convulsions; fretful disposition; nervous headache.

Patinum.—Depression of spirits; excessive sexual desire; excessive uterine hemorrhage; much bearing down pain in pelvis; ovarian tenderness; indurations of the uterus; albuminous leucorrhœa; useful in hysteria.

Rhus Tox.—Numbness of feet and limbs; rheumatic complications; takes cold easily; white sediment in urine; uterine hemorrhage.

Secale Cor.—Bearing down pain in uterus; uterine hemorrhage; has cold perspiration; flabby condition of the muscles; menses profuse; relaxation of the uterine tissues.

CHAPTER IX.

AREOLAR HYPERPLASIA OF THE UTERUS; OR, CHRONIC PARENCHYMATOUS METRITIS.

AREOLAR HYPERPLASIA of the uterus has been, until of late, described as chronic metritis. Professor Thomas, of New York, has taken great pains to elaborate this disease in his work on "Diseases of Women," fourth edition. I shall take the liberty to quote considerably, at length, from him, as his views regarding this disease are so fully in accord with my own, I feel that in all respects, save a part of his treatment, I can fully agree with him; the objectionable points (in my mind) in his treatment being scarifications and blisters locally to the cervix uteri, and his drug medication, which is, however, in accord with the school of medicine to which he belongs, and is, I believe, as good as any which has been proposed by any one of that school. I am convinced of the more satisfactory results of homœopathic drug medication, and one of the best wishes I could ask for man, as well as woman kind, would be that the old school might, in a body, embrace and practice the principles of homœopathy. As I turn to Professor Emmet's new work on "Diseases of Women" to learn what he says upon this disease, I am surprised to find he has omitted it entirely, and find, on further search, that he has said but a few words upon hypertrophy of the uterus, and nothing under the heads of either metritis or chronic parenchymatous metritis, though his work is so very elaborate and excellent in many respects. I had previously noticed that in his index I could find no mention made of puerperal fever, puerperal phlebitis, mammary abscess, hydatids, hysteralgia, cervicitis, rectocele, sterility, etc.,

still I was unprepared to find that he gave but a page or so to the consideration of all the forms of inflammation of the womb.

Inflammation of the uterus, in its various forms, we have considered of the utmost importance, and we have attempted to describe and give the treatment of metritis, endo-metritis, cervicitis, endo-cervicitis, and peri-metritis, and still we could not feel our work complete, or up with the onward progress of medical discovery, without giving some time to the consideration of areolar hyperplasia of the uterus. This is rather a result of disease than a disease *per se*. The connective or cellular tissue, situated between the endometrium and muscular tissue, between this muscular tissue and the outer coverings of the uterus, and also connecting the fibers of the muscular tissue of the organ, is the part affected in this disease, which results as a consequence of long continued irritation of some part or the whole of the organ. In the outset the disease of the uterus may have been endo-metritis, cervicitis, or even endo-cervicitis only, and still the connective tissue may have become, after a time, affected so as to produce hyperplasia of this tissue.

The condition is similar to that found in cases of chronic cervicitis. There is engorgement of the cellular tissue, from effusion of serous fluid into its interspaces.

This effusion, resulting from chronic irritation, may some day be discovered to contain material which is not always so mild in its effects as serum; and I suspect that herein may be found, at no distant day, an explanation of the development of carcinoma of the uterus.

In hypertrophy of the uterus all the tissues of the organ are enlarged, especially its muscular tissue. In areolar hyperplasia the muscular tissue may be atrophied instead of enlarged, although the organ as a whole is enlarged, owing to the distension of the connective tissue from the effusion mentioned.

This effusion in time becomes organized, forming new areolar tissue, or distending the minute cells of this tissue so as to appear increased in its substance. Following this condition, further effusion may take place into this tissue of sero-plastic lymph, or of abnormal cell plasma, which may cause induration, or cancerous degeneration of the tissues; or the hyperplasia may remain (for a long period at least) without resulting in induration or carcinoma. In these cases the uterus is found enlarged, somewhat patulous, often displaced, especially downwards, and often retro-verted or flexed. Constipation is an almost constant symptom in these cases, vesical irritation, strangury, ischuria, etc., being frequent; pain in the loins, back, or thighs, pain at the base of the brain, or on the top of the head, gastric derangements, nervous or hysterical manifestations, etc. This is the train of symptoms pointing to this condition, especially when the history of the case shows that these symptoms have been present for a long time. Pain in the pelvis is not very frequently complained of in these cases, and the absence of this pelvic pain is the very point likely to mislead the physician in diagnosis. The symptoms are largely sympathetic, and embrace, at one time or another, about all the sympathetic effects manifested by any uterine disease. (See Sympathetic Affections.) Of this disease Dr. Thomas* says:

"One of the most common pathological combinations which confront the gynæcologist is that which I here endeavor, in as concise a manner as possible, to picture. A patient calls upon us for relief of backache; pelvic pains; dragging sensation about the loins; 'bearing down pains;' leucorrhœa; menstrual disorder, tending chiefly to excessive flow; throbbing sensation about the uterus; general feeling of despondency, malaise, and weakness; and irritability about the bladder and rectum. All these rational signs pointing to the uterus as the probably delinquent organ, a physical explora-

*Thomas's "Diseases of Women," p. 274.

tion is made, and furnishes the following results: The uterus is usually discovered to be in the condition of descent, retroversion, or ante-version; it is voluminous, tender to the touch, and evidently engorged with blood; from the cervical canal a leucorrhœal matter pours; the probe carried to the fundus finds it tender, and creates the flow of a little blood; the cervix is often in a condition of granular or cystic degeneration; and a low grade of vaginitis exists.

"To this pathological combination the more superficial diagnostician will often apply a name which announces one only of the existing conditions; as, for example, uterine catarrh, ulceration of the cervix, or retroversion or prolapse. The more reflective and intelligent examiner will ordinarily group the coincident morbid states together under the name of 'chronic metritis.'

"The latter would be fully sustained in his position by authority as abundant as it is orthodox, for by systematic writers, since the days of Récamier, this uterine state has been described as one of 'chronic parenchymatous metritis.' Only within a very recent period have the pathologists of the German school begun to question the validity of this conclusion, which, taking its origin in France, was spread through England and America chiefly by the writings of Dr. Henry Bennet. According to this view, the following pathological changes were believed to be those resulting in the condition just described. In the first stage the parenchyma was regarded as gorged with blood, a state of active congestion existing. This was supposed soon to pass into the second stage, consisting in an effusion of lymph, when, unlike a similar process in other parts, the morbid action ceased, or rather did not advance, and, unless relieved by treatment, continued stationary for a length of time. The third stage of inflammation in other parts, that of suppuration, was admitted to occur rarely here, or in the parenchyma of the body, but in time, all inflammatory action ceasing, the cervix

remained large and indurated without sensitiveness, or the effused lymph might be absorbed, and great diminution in size occur with induration. Were this really the case the condition would constitute one of inflammation, even if we restricted ourselves in the use of that ambiguous term to the narrow and precise limits prescribed by Dr. J. Hughes Bennett, when he says: 'It should be applied only to that perverted alteration of the vascular tissues which produces an exudation of the liquor sanguinis; it is this exudation alone which can be held to unequivocally characterize an inflammation.'

"Examined more recently, however, by the more certain and less theoretical processes of modern science, all this has come to be looked upon as erroneous. Cases which were formerly regarded as instances of inflammation—on account of the existence of enlargement, congestion, and tenderness upon pressure—the microscope now proves to have been instances of excessive growth of the connective tissue of the uterus, with congestion, and resulting hyperæsthesia of its nerves.

"It may result from three entirely different pathological states: first, from interference with retrograde metamorphosis of the puerperal uterus from any cause; second, from congestion long kept up by mechanical causes, such as displacement; third, from a formative irritation or state of hypernutrition excited by endo-metritis, or the existence of fibrous tumors. Whatever be the originating pathological condition, that which results and which we are now considering consists in hyperplasia of connective tissue as its most marked feature, and of congestion and nervous hyperæsthesia as important accompaniments.

"Every-where throughout the recent and progressive literature of gynæcology the foreshadowing of the advancing change in views with regard to this subject will be recognized. The pendulum, swung too far by the hand of Dr. Henry Bennet, is making its inevitable return. That it may

stop on safe middle ground must be the hope of all. 'The determination of blood to a part here noticed, characterized by dilatation of the arteries, with increased flow of blood through the capillaries, must be distinguished from the congestion of inflammation, characterized by the accumulation and stagnation of red and white corpuscles in the vessels, tending to be abnormally adherent to each other and to the vessels,' says Dr. H. G. Wright,* quoting from Dr. Aitken. 'Tested by this standard' (that of Dr. J. Hughes Bennett, already quoted), says Dr. Graily Hewitt,† 'the uterus is certainly very little liable to "inflammation;" exudation, and transformation of such exudations, purulent and otherwise, similar to what may be witnessed in other organs of the body, being very rarely witnessed in the parenchyma of the uterus. The morbid processes with which we are familiar as affecting the tissues of the uterus are, for the most part, alterations of growth, irregularities in growth, slight modifications, in fact, of the processes which follow each other in due succession in the natural condition of things. The word "inflammation," used in Dr. J. Hughes Bennett's sense of the word, certainly fails to convey an adequate idea of the modifications observed under such circumstances.' 'Diffuse growth of connective tissue,' says Klob,‡ 'constitutes the so-called induration, hitherto considered as a result of parenchymatous inflammation of the uterus. . . . For reasons mentioned I would also advise a disuse of the term "chronic inflammation."' In a discussion‖ upon chronic metritis, before the New York Academy of Medicine, Dr. Noeggerath limited the disease to 'growth of cellular tissue, both of the body and neck, occurring only during the puerperal state.' Dr. Peaslee preferred 'to call the disease under consideration congestion, rather than inflammation, because it has none of the events of inflammation;' and Dr. Kam-

* "Uterine Disorders," p. 218.

† "Dis. of Women," p. 363.

‡ "Op. cit.," p. 129.

‖ "Med. Record," No. 92, p. 475.

merer expressed the view that 'chronic inflammation of the substance of the non-puerperal uterus is never met with; what has been described as such is hypertrophy of connective tissue, resulting from long continued hyperæmia.'

"These views, which, among men who are in the advance in gynæcology, are rapidly gaining ground, are not sustained by analogical reasoning, but by anatomical proof. I know of nothing which will more surely convince the reader of the necessity for an alteration in our nomenclature concerning this condition than a perusal of Scanzoni's* article upon it. This author, after heading his chapter 'Chronic Parenchymatous Inflammation of the Womb,' goes on to say: 'The nature of the disease would then be, in an anatomical point of view, a hypertrophy of the cellular tissue.' Certainly the 'anatomical point of view' is an important one, and it is supported by what we observe from a clinical stand-point.

"So much evil has arisen for pathology and treatment from the use of the term chronic metritis, and so clear a demonstration has been made that the condition so called is not one of true inflammation, that some other appellation is not only desirable, but has become absolutely essential. It is incontestable that there is a peculiar condition that affects the uterus which is characterized by distention of blood-vessels from vital or mechanical cause, effusion of the serum of the blood, and hypergenesis of connective tissue. To denote this state, gynæcologists have long required a name, for medical nomenclature is as necessary as it is faulty. Lisfranc felt this need when he styled it 'engorgement;' Hodge, when he entitled it 'irritable uterus;' Bennet, when he called it 'metritis;' and others have also acknowledged the necessity; Klob, for example, in 'habitual hyperæmia' and 'diffuse proliferation of connective tissue;' and Kiwisch, in 'infarctus.'

"The appellations infarctus, engorgement, and hyperæmia

*"Diseases of Females," Am. ed., p. 181.

only convey a partial idea of the truth; they only announce one element of the condition—congestion—while that of irritable uterus ignores all structural change in announcing another element—nervous hyperæsthesia. At the same time that the phrase, 'diffuse proliferation of connective tissue, due to hyperæmia,' which is employed by Klob, clearly defines the pathological condition, it is too long and burdensome to answer the purpose of a name to be conventionally employed. If there be a term now in existence which does really convey the idea truly and completely, it should surely, in the interests of pathology and treatment, as well as out of consideration for the overburdened student of medical nomenclature, be employed in preference to the adoption of a new one. Enlargement of an organ, due to the formation of new cells similar to those of the tissue in which they are developed, has been styled, by Virchow, hyperplasia, in contradistinction to hypertrophy, which consists in increase of size from distension of cells already existing. As the condition of the uterus now under consideration is one arising from over-excitation of the vaso-motor and excito-nutritive nerves, a 'formative irritation,' as Klob styles it, and resulting in a numerical hypertrophy, it appears to me that the term areolar hyperplasia would more correctly designate it than any other with which I am acquainted. With a sincere desire to lessen, and not to increase, the labors of the student and the perplexities of the gynæcologist, I shall, therefore, replace the confusing term, chronic metritis, by that of areolar hyperplasia of the uterus.

"If the disease really consists in a proliferation or hypertrophy of the areolar or connective tissue of the uterus, and not in chronic inflammation, it would certainly be advantageous to apply to it some name which would signify that fact. 'Areolar hyperplasia'* expresses this fact concisely,

*Hypertrophy signifies excessive growth of the elements of a tissue already existing; hyperplasia signifies the development of new tissue.

and hence I have employed it. But the only proof of the appropriateness of a newly applied term is its general adoption. If this be accepted, I shall feel that good has resulted from my effort; if its approval be not implied by adoption, I shall admit, with regret, that I have only helped to render confusion worse confounded.

"Pathology of Areolar Hyperplasia.—The vast majority of cases are due to interference with that retrograde metamorphosis occurring in the puerperal uterus, styled involution. To comprehend the pathology of cases thus arising, it will be necessary to consider the physiology of that process as well as the pathological conditions which may affect it.

"It is only within the last quarter of a century that we have understood the process by which the uterus, an organ measuring three inches, in the short space of nine months enlarges so as to contain a child, or even two or three children, and then, within two months after delivery, undergoes so rapid an absorption as to return to its original size. The credit of elucidating the subject belongs chiefly to Germany, for it is to Virchow, Franz Kilian, Heschl, Kölliker, and Retzius that we are most indebted.

"The important pathological fact, that arrest in a disturbance of this process constitutes a condition of disease, emanated from Sir James Simpson, who, in 1852, published the first article which drew especial attention to it. His article was entitled, 'Morbid Deficiency and Morbid Excess in the Involution of the Uterus after Delivery.' Since that time, the condition which now engages us has become generally recognized as a uterine state of great frequency and moment.

"To fully comprehend this part of our subject, it is necessary to bear in mind the component parts of the healthy uterine parenchyma. It consists of five elements: 1. Fusiform fiber cells, or, as they are termed, the smooth muscular fibers; 2. Round and oval nuclei, which are supposed to be elementary fusiform fiber cells; 3. Amorphous or homo-

geneous connective tissue, which permeates the parenchyma and binds together the fiber cells and nuclei; 4. Fibrillated connective tissue or white fibrous tissue; and, 5. Elastic fibrous tissue. These elements, together with nerves, blood-vessels, and lymphatics, make up the tissue of the uterus, which is covered by a serous membrane externally and a mucous membrane within.

"No sooner does this structure feel the stimulus of conception than it develops rapidly, partly by growth of already existing structures, and partly by new formations. The round or oval nuclei rapidly develop into fusiform cells, and these as rapidly grow into colossal cells, which grow longer and more powerful as pregnancy advances. 'A new formation of muscular fiber also takes place,'* the connective tissue elements grow proportionately, and the blood-vessels enlarge.

"Parturition occurs, and almost immediately a retrograde evolution begins to restore the uterus to its original constituency. The fully developed fibers undergo a fatty degeneration; the fat thus formed is absorbed, and the organ rapidly diminishes in size and weight. This fatty degeneration affects the organ after the fourth day subsequent to delivery, and, according to Heschl, the commencement of a new formation of muscular fibers is recognized in the fourth week after labor, in the form of nuclei and caudate cells. At the end of the eighth week the uterus has returned to its normal state.

"Certain untoward influences may retard or check this process, and the uterus remain flabby and large, when it is said to be in a state of sub-involution, or arrested retrograde evolution.

"Thus far we have been dealing with facts thoroughly ascertained by histological investigations and fully established by evidence yielded by the microscope. But from this point the pathology of sub-involution is not so satisfactorily settled.

* Arthur Farre: "Cyc. Anat. and Phys.," Article Uterus.

Prof. Simpson declared that the disease was due to the fact that 'this retrograde metamorphosis of the uterus has not taken place during the puerperal month, or has taken place only to such an imperfect degree that the uterus is of the size we usually see it have at the end of the first week or so after delivery;' but he entered, if I may judge from the posthumous volume of his work upon Diseases of Women, upon no detailed account of the existing pathological defect in the organ. Since his writing, it appears to have been agreed upon that this consists of persistence of the muscular fibers, characterizing pregnancy, in a state of fatty degeneration. Thus Dr. Wright* says: 'Pathologically, it closely corresponds with that state of the heart structure so admirably described by Dr. Richard Quain, and commonly known as fatty degeneration.' Dr. West† expresses himself thus: 'Though fatty degeneration of the tissues takes place, yet the removal of the useless material is but imperfectly accomplished, while the elements of the new uterus are themselves, as soon as produced, subjected to the same alteration.' I search in vain the literature of the pathology of this subject for a basis for these hypotheses. That literature is scanty in the extreme as yet, and the subject awaits extended researches before we can speak intelligently of it. The day has passed, however, when we can let probabilities in pathology pass current for facts.

"The best, indeed I may say the only, detailed account of this condition studied by the microscope, which I have been able to obtain, is one by Dr. Snow Beck,‡ of London. 'The enlargement of the uterus did not depend so much upon an increase in the size of the contractile fiber-cells as upon an increased amount of round and oval globules, with amorphous tissue in the uterine walls. . . . The essential condition of the organ consisted in the elements of the different tissues

* "Uterine Disorders," p. 221. † "Dis. of Women," 3d Eng. ed., p. 89.

‡ "London Obstetrical Trans.," Vol. XIII, p. 239.

retaining a portion of the natural enlargement consequent upon impregnation. But this enlargement was more due to the increased size and amount of the soft tissue present in the walls of the uterus, as well as at the internal surface, than to the increased size of the contractile fiber-cells.' Marked congestion existed, the blood-vessels being large and forming a complete and continuous system with the capillary network on the inner surface of the uterus. No allusion to preponderance of muscular fibers is anywhere made, and no mention of fatty degeneration occurs.

"The condition of the uterine cavity is important. It is always enlarged, the glands of the cervix are usually enlarged, and upon the lining membrane of the cavity fungoid growths are commonly developed.

"This is all that can with positiveness be said of the pathology of the early periods of sub-involution in the present undeveloped state of the subject.

"The uterus, the study of the tissues of which gave Dr. Beck's results, measured $3\frac{1}{2}$ inches in length, $2\frac{1}{4}$ inches across the fundus, the walls were $1\frac{3}{8}$ inches thick, and the uterine canal was 3 inches deep.

"As time passes the uterine walls diminish in size, their tissue grows less vascular, the blood-vessels become smaller, and the uterine cavity assumes smaller dimensions. But the organ does not assume its original size; it remains large, dense, firm, and sensitive, for years presenting the characteristic appearances of the so-called chronic parenchymatous metritis. Although taking an entirely different view of the pathology of chronic metritis, Dr. West* signalizes almost the same fact in the following words: 'It must, however, be at once apparent that after inflammation has passed away, its effects may remain in the larger size and altered structure of the womb, and that the very nature of these changes will be such as to render the repair of the damaged organ both un-

* "Op. cit.," p. 89.

likely to occur and slow to be accomplished, and must leave it in a condition peculiarly liable to be aggravated during the fluctuation of circulation and alternations of activity and repose to which the female sexual system is liable.' This is just the state to which I allude at the commencement of this chapter, as one existing years after labor, and which, attended by congestion, displacement, catarrh, and granular degeneration, is styled chronic metritis. It is, I think, this state which most frequently furnishes instances of areolar hyperplasia to the microscope.

"Let any one patiently and faithfully watch a case of sub-involution for a year or two with reference to this point, as I have repeatedly done, and I can not doubt that he will have the same evidence which makes me so strong in my present belief. Lastly, let it be remembered that, by the French school, no condition of arrest of development is recognized as accounting for it; these are cases of 'post-puerperal metritis,' metritis, according to M. Gallard,* without symptoms, 'chronique d'emblée.'

"Does any one claim that between this condition and chronic metritis a difference should be made? Let him tell me by what means he can at the bedside distinguish one from the other, and I may agree with him. There are no means for such differentiation. If the uterus be very large and the patient recently delivered, the case is termed sub-involution by English writers; if its dimensions have diminished, years have elapsed since parturition, and the almost universal accompaniments of the condition, leucorrhœa, granular degeneration, and displacement be present, it is styled chronic metritis.

"Arrest of involution of the puerperal uterus is an occurrence of very great frequency. It constitutes the chief cause of all chronic uterine disorders, and for this reason its importance can not be overestimated. Until this subject receives

* "Op. cit.," p. 372.

the attention which it deserves, the present confusion as to the causes, pathology, and general features of chronic metritis, which helps to weaken uterine pathology, must continue.

"In the first stage of the disease the hypertrophied areolar tissue is congested, containing absolutely more blood than normal, and the whole of the affected part, neck, body, or entire uterus, is greatly increased in size and weight. As time passes, the second stage of the disorder supervenes, and an opposite state of things is set up. Klob describes it in these words: 'The parenchyma on section appears white or of a whitish-red color, deficient in blood-vessels, from compression of the capillaries by the contraction of the newly formed connective tissue, or from partial destruction or obliteration of vessels during the growth of tissue; the firmness of the uterine substance is also increased, simulating the hardness of cartilage, and creaking under the knife.' This constitutes a true sclerosis* of the uterus.

"Every practitioner must have met with cases in which a large, red, engorged, and soft uterus, examined after an interval of several years, has been found, to his surprise, to have become small, densely hard, white, and anæmic, and its cavity diminished in size. Such an organ removed from the body cuts like fibrous tissue, and appears when cut almost as dense and bloodless.

"COURSE AND TERMINATION.—The length of time which this condition may last is very uncertain. After the connective tissue once becomes thoroughly affected by the disease, it rarely returns to its original condition; but so complete is the relief which may be afforded the patient by removal of those concomitant conditions that attend upon it and increase the discomforts which are due to it, that she will often, for years, imagine herself well. Very suddenly, however, imprudence during menstruation, the act of parturition, over-

* The term sclerosis was, I believe, first applied to this condition by Skene, of Brooklyn. Subsequently Gallard likewise employed it.

exertion, or some other influence creating congestion, will produce a relapse which will convince her of her error. It is astonishing to what an extent enlargement of the cervix as a result of areolar hyperplasia will go. Sometimes this part will equal in size a very small orange, and, filling the vagina, will compress the rectum to such an extent as to interfere with its functions. Uninterfered with by art, the disease has no fixed limits. The increase of uterine weight which it induces usually results in displacement. This increases already existing congestion, and the patient suffers, until the menopause at least, from endo-metritis, granular cervix, and the ordinary symptoms of displacement.

"In some cases contraction of the exuberant tissue occurs, and uterine atrophy, with its accompanying symptoms, takes place.

"Frequency.—This affection is one of great frequency, and as it was formerly universally regarded as chronic parenchymatous metritis, this is one great reason why inflammation of the structure of the uterus was thought to be so common. This fact makes its careful study a matter of great moment to the gynæcologist. I do not hesitate to declare that he who fully masters it, and thoroughly appreciates its frequency and influence, will possess a key to the management of numerous cases which would in vain be sought for elsewhere.

"Predisposing Causes.—These may be enumerated as—

"A depreciation of the vital forces from any cause;

"Constitutional tendency to tubercle, scrofula, or spanæmia;

"Parturition, especially when repeated often and with short intervals;

"Prolonged nervous depression;

"A torpid condition of the intestines and liver.

"The Exciting Causes are the following:

"Overexertion after delivery;

"Puerperal pelvic inflammation;
"Laceration of the cervix uteri;
"Displacements;
"Endo-metritis;
"Neoplasms;
"Cardiac disease;
"Abdominal tumors pressing on the vena cava;
"Excessive sexual intercourse.

"After delivery many of both these sets of causes are developed by the pernicious system of management which nurses frequently adopt. The nerve and blood states of the woman are depreciated by starvation, impure air, and disturbance of sleep by attention to the wants of the child, while the enlarged uterus is forced into retroversion, and the congestion which it induces, by a very tight bandage, rendered still more hurtful by a thick compress over the uterus. The practitioner who regards delivery of the placenta as the end of the third stage of labor furnishes a marked predisposing cause. The third stage of labor consists in complete and permanent contraction of the uterus, and may not be accomplished for hours after the expulsion of the placenta. No obstetrician has done his duty who leaves his patient before its accomplishment.

"Symptoms.

"It is impossible to present the symptoms of this condition entirely separated from those of complications which very commonly attend it; such, for example, as displacement, laceration of the cervix, ovarian congestion, granular cervix, etc. These states, of course, produce symptoms of their own, which mingle with those of the main disorder. The symptoms, then, which are due to areolar hyperplasia, and its almost inevitable complications, are the following. If the cervix alone be affected, there are:

"Pain in back and loins;
"Pressure on bladder or rectum;

"Disordered menstruation;
"Difficulty of locomotion;
"Nervous disorder;
"Pain on sexual intercourse;
"Dyspepsia, headache, and languor;
"Leucorrhœa.

"If the affection be general or corporeal, graver symptoms manifest themselves.* Chief among these are:

"A dull, heavy, dragging pain through the pelvis, much increased by locomotion;
"Pain on defecation and coition;
"Dull pain beginning several days before menstruation, and lasting during that process;
"Pain in the mammæ, before and during menstruation;
"Darkening of the areolæ of the breasts;
"Nausea and vomiting;
"Great nervous disturbance;
"Pressure on the rectum, with tenesmus and hemorrhoids;
"Pressure on the bladder, with vesical tenesmus;
"Sterility.

"PHYSICAL SIGNS OF CERVICAL HYPERPLASIA.—Vaginal touch will generally discover that the uterus has descended in the pelvis so that the cervix will rest upon its floor. The cervix will be found to be large, swollen, and painful, and the os may admit the tip of the finger. If the finger be placed under the cervix, and it be lifted up, pain will be usually complained of, and if it be introduced into the rectum so as to press upon the cervix as high as the os internum, it will often reveal a great degree of sensitiveness. Under these circumstances, the direction of the uterine axis will generally be found to be abnormal. The cervix will, in some cases, have moved for-

* It must not be supposed that all these symptoms occur in all or even in the majority of cases. In many cases few, and in some almost none of them, will be recognized.

wards and the body backwards, or the opposite change of place may have occurred.

"Physical Signs of Corporeal Hyperplasia.— If two fingers be carried into the vagina, and placed in front of the cervix so as to lift the bladder and press against the uterus, while the tips of the fingers of the other hand be made to depress the abdominal walls, the body of the uterus will, unless the woman be very fat, be distinctly felt, should the organ be ante-flexed. Should it not be detected, let the two fingers in the vagina be now carried behind the cervix into the fornix vaginæ, and the effort be repeated; if the uterus be retro-flexed or retro-verted, or even in its normal place, it will be detected at once. By these means we may not only learn the size and shape of the organ, but its degree of sensitiveness. This may likewise be accomplished, to a certain extent, by rectal touch. The uterine probe may then be introduced, the cavity measured, and the sensitiveness of the walls carefully ascertained.

"A point which should be settled before the diagnosis can be considered complete will be whether the cervix alone is affected, or whether its enlargement is only a part of a general uterine development. To determine this question, two means are at command: First, the examiner, introducing one or two fingers under the body of the uterus, and depressing the abdominal walls by the other hand, so as to clasp the fundus, ascertains whether it is larger than it should be, or of normal size, and free from sensitiveness. He then passes the uterine probe into the cavity of the body, and measures it. If the uterine cavity be increased in size, the evidence is in favor of the disease having extended to the tissue of the body. Should its size be normal, this is probably not the case. This sign is not, however, to be entirely relied upon.

"Sometimes, suspicion of scirrhous cancer in an early period being entertained, it becomes necessary to decide

between its existence and that of the second stage of areolar hyperplasia, or sclerosis. Scanzoni doubts the possibility of deciding, but it appears to me that the investigator will usually succeed in doing so by the following comparison of signs and symptoms:

In Cervical Sclerosis.	*In Scirrhous Cancer.*
"The patient shows no cachexia.	She often does.
"There is tendency to amenorrhœa.	There is tendency to hemorrhage.
"The history usually points to parturition.	It does not.
"It has been preceded by symptoms of uterine enlargement.	It has not.
"The cervix feels like dense fibrous tissue.	It feels almost like cartilage.
"The body is, perhaps, implicated.	It is very rarely so.
"A sponge-tent softens the tissue.*	It leaves it hard and dense.

"Prognosis.

"The prognosis in hyperplasia of the entire uterus, or of the body alone, is unfavorable with regard to complete cure, though highly favorable with reference to great relief of symptoms and to danger to life. Should the patient be approaching the menopause, it is possible that, after the functions of the uterus cease, atrophy may occur, and relief be obtained. But one can not be sure even of this, for the monthly discharge may give place to metrorrhagia, or all the symptoms may continue, in spite of the menstrual cessation. Under a course of local treatment, combined with one conducted with special reference to the general system, hope may always be held out that, although restoration of the uterus to its normal condition may not be effected, the evils resulting from the complications of this disease can be so fully controlled that comfort will be obtained. When the neck of the uterus alone is affected, a favorable prognosis may always be made, for here there are fewer grave complications to be encountered; such, for example, as corporeal endo-metritis, menorrhagia, etc. The diseased part is likewise more accessible to local treatment, and is also a much less sensitive and

*This test originated with Spiegelberg.

important part of the organism; I might, indeed, almost say a less important organ, so distinct are the uterine body and neck, physiologically and pathologically. As I have elsewhere stated, the prognosis will depend, in a great degree, upon the patient. If she be unwilling to sacrifice her inclinations and pleasures, but half fulfill the directions of the attending physician, and clandestinely expose herself to prejudicial influences, the treatment will accomplish nothing. In the case of a reasonable patient, who appreciates what is at stake, and is anxious to regain her health, it may be regarded as favorable.

"Treatment.

"REST.—The patient should be instructed to take much less exercise than usual, to lie upon her bed or lounge for an hour every day, about midday, and to be especially quiet during menstrual periods. It is highly improper to confine her to bed, for many women become restive under the confinement, and suffer both in mind and body, the sanguineous and nervous systems being impaired by want of fresh air. If the connective tissue be so much affected that the cervix is very painful upon pressure, absolute rest upon the back may become necessary, but my impression is that deprivation of fresh air and exercise ordinarily does more harm than is compensated for by the advantages arising from quietude. Every day she should go, unless deterred by some special cause, into the open air; and a limited amount of exercise should be inculcated, as a means of keeping up the general health.

"The uterus should be placed at rest as much as possible. Its natural tendency, under these circumstances, is to fall from its position; consequently, all pressure should be removed from its fundus by the use of a skirt-supporter and a well-fitting abdominal bandage."

The use of the abdominal supporter I have found of the

utmost benefit; in fact, we doubt if these chronic cases can be successfully treated without its use. We would not dispense with them on any account. They need to be used with care and judgment, however. They must be made to fit so as to be really supporters of the abdominal viscera, and not compressors of the abdomen. (See improved London Supporter, Plate XII.)

Sexual Intercourse.—Sexual intercourse is harmful in these cases as a rule, and should be prohibited in most cases.

Diet.—The diet should be nourishing, but not stimulating. It should be easily digested and taken in moderation, and at regular times only.

Remedies.

Ars. iod., *Merc. iodid.*, *Phytolac. dec.*, *Ferrum*, *Merc. cor.*, *Kali idro.*, *Nux*, *Ars. alb.*, *Secale*, *Ignatia*, *Iris vers.*, *Hyosc.*, *Verat. vir.*, *etc.*, are indicated remedies in this disease, and the sympathetic affections dependent upon it. Special indications for these remedies may be studied best in works on Materia Medica.

Remedies in Homœopathic practice are not given according to the name of any disease, and must always be selected according to the pathogenesis of the drug, and we simply mention here the remedies most likely to be indicated to facilitate the selection of the appropriate one, by the study of each individual case. I have named the remedies in the order in which they are prominent in regard to the frequency of their being indicated.

Local Treatment.

Some gentle local treatment we have found useful. The warm vaginal injection of water, using a large quantity, with a *Davidson's* syringe once a day, is of service. We think when there is a displacement of the uterus its retention *in situ* is usually the thing to attend to at first. The

displacement, though it may have been in a measure caused from this disease, may be a cause of its continuance. The malposition of the uterus tends to keep up an irritation of the nerves, and to cause an increase of the circulation in the parts.

Displacements can not always be relieved at once, on account of the tenderness of the parts. In such cases, we must direct the patient to take rest in the recumbent position, use warm vaginal injections of water, and take remedies for the relief of the tenderness. These remedies indicated by the tenderness are, *Bell.*, *Arnica*, *Acon.*, *Gelsem.*, or *Verat. viride*. We may also apply a wad of cotton saturated with glycerine to the cervix uteri. As soon as the uterus is sufficiently free from tenderness to allow of it, we should proceed to rectify the displacement. (See Displacements.)

Now, in addition to the use of the homœopathically indicated remedies given internally, we may use some local treatment. The object to be obtained is, absorption and contraction.

The local application to the cervix uteri, externally and internally, of a solution of Iodine, is the most efficient remedy we have found, using the solution of the strength of about ten grs. of *Iod. res.*, and *Potass. iodid.*, ʒss. to *Aqua* ℥i; applying this to the cervix with a soft brush, and to the cervical canal with a small uterine sound wrapped with cotton. These applications we would not make oftener than once in three days. During treatment the daily use of the warm water vaginal injection is advisable.

Scarifications of the cervix, blisters, and caustics we do not use, and can now say (after ten years of experience without them, and having had more than that number of years of experience in their use in hospital and private practice while in the old school), that we feel sure their use is harmful. Our experience is decidedly in favor of leaving them entirely alone.

Sponge Tents.—A sponge tent covered with glycerine, and placed for about six hours in the cervical canal, is often very useful. First, it dilates the canal so as to make it easier to apply the *Iodine*. It compresses the tissues so as to temporarily impede the capillary circulation, and the local application of the glycerine is also of service. In using the sponge tent caution must be exercised that the patient does not take cold. It better always be done at the patient's home, and the sponge should not be allowed to remain more than six or eight hours in this class of cases.

CHAPTER X.

PERI-METRITIS—PELVIC CELLULITIS—PELVIC ABSCESS.

PERI-METRITIS indicates, strictly, an inflammation of that portion of the peritonæum attached to and covering the uterus; but, by common consent, it is applied to the inflammation of the peritonæum situated within the pelvis. It is a frequent complication of cellulitis, and, when existing independently of cellulitis, has many symptoms in common with it. In a case of pure and primary peri-metritis we have not the effusion which takes place in cellulitis, and the tenderness in the vagina is confined to the upper portion entirely. After the lapse of several weeks, we may have effusion of serum into that portion of the peritonæum lining Douglas's *cul-de-sac*, and the case then may resemble recto-vaginal hæmatocele; though it is much smaller in size and is not so diffuse.

Symptoms.

The symptoms of peri-metritis are much like cellulitis. There is the stage of congestion, followed by fever and reaction, with the wiry, rapid pulse; acute pain in the pelvis just posterior to the pubis. Vaginal examination does not reveal any evidence of inflammation in the cellular tissue. Slight pressure upon the uterus upwards produces no pain, but hard pressure causes much suffering; the pain and tenderness being referred to the lower portion of the abdomen, just above or posterior to the pubis, about the fundus of the womb, and in the region of the bladder. There is not, however, the frequent desire to pass water which we have in cystitis, as the lining membrane of the bladder is not affected.

There is some little pain from distension of the bladder, but the sensation is more often described as an uneasy feeling. Slight pressure in the lower portion of the hypogastric region produces pain, while in metritis, endo-metritis, etc., slight pressure causes no pain, but hard pressure can not be endured. Generally, in a few days, and sometimes in twenty-four hours, the inflammation extends over the peritonæum, and we have a case of general peritonitis. In some cases, however, the disease is arrested at once, and no extension of inflammation occurs. The disease may exist as a primary difficulty, or may exist as a complication of, or in connection with, the inflammation of some of the pelvic organs or viscera. The disease may be acute, chronic, or sub-acute. The acute form, though more dangerous, is not so likely to produce effusion as the chronic.

Etiology.

It is probable that most primary cases of peri-metritis are the result of cold, generally taken at the menstrual period, or following surgical operations. But peri-metritis very frequently results from extension of inflammation in the uterus, ovaries, or cellular tissue, and occasionally the bladder.

Treatment.

The treatment must be in accordance with the stage of the disease and the special indications in each particular case. In the early part of the disease *Ars. alb.*, *Acon.*, *Bry.*, or *Arnica* are indicated, while later in the disease *Merc. cor.*, *Merc. iod.*, *Kali iod.*, *China*, *Cimicif.*, *Colocynth.*, or *Nux* are the remedies. Rest is necessary. The recumbent posture should be maintained, and warm applications be made to the feet and limbs. Cool, acidulated drinks are often grateful to the patient. The diet should be mild and non-stimulating. Fomentations of hops, or the hop or warm water compress,

may be applied to the hypogastrium, and the warmth maintained by coverings of dry flannel.

Great industry should be exercised to arrest the inflammatory action, by promoting the action of the skin and secretions generally, in this way establishing an equilibrium in the circulation, relieving the congestion and inflammation. Cathartics, anodynes, or the hypodermic syringe, are to be strictly prohibited. Meddling friends will often be suggesting these things, as well as turpentine externally; but there is no way that proves satisfactory but a firm though kind refusal to allow of their use. Teach the people that benumbing the system is not curing the disease; show them the beneficial effects of homœopathic treatment by giving a single dose of *Colocynthis* (which is very often indicated in this disease), and let them observe its effect, and then notice the freedom from nausea, constipation, and loss of appetite, produced by opiates, to say nothing of the terrible effects of the opium habit, so often resulting from the administration of the drug, allopathically, for the relief of pain.

Sequelæ.

The result most to be feared after peri-metritis is effusion of serum into the peritonæal cavity. If it does occur, *Apis mel.*, *Ars. alb.*, *China*, *Dig.*, *Can. ind.*, *Merc. iod.*, etc., are usually indicated. Sterility may be looked for as another sequel of peri-metritis, though it is not a certain result. This is owing to the thickening of the peritonæal covering of the ovaries from inflammatory action, and the consequent prevention of the escape of the ovum from the ovisac; hence, it becomes impossible for the ovum to enter the fallopian tube or the uterus, and become impregnated. The retention of the ovum may cause the development of ovarian cystoma or fibroma; hence, we see that peri-metritis may be a cause of ovarian tumors.

Pelvic Cellulitis.

Cellulitis, Para-metritis, Pelvic Abscess, etc.—These terms indicate inflammation of the cellular tissue surrounding the uterus, vagina, fallopian tubes, ovaries, etc. The cellular tissue serves to fill up the interspace between the rectum and vagina; and, in fact, is a connective tissue which connects, and still separates, all the pelvic organs, and serves as a bed, in which are located the blood-vessels and nerves as well. This tissue is more liable to inflammatory action than is generally supposed, and many cases of cellulitis are overlooked and misdiagnosed, being denominated *inflammation of the womb, neuralgia of the womb, irritable uterus, etc.*

Too much stress can hardly be put upon the necessity of more care in the diagnosis of female complaints, and especially cellulitis. Many a patient suffers greatly and loses her life from a want of proper attention to the diagnosis and proper treatment of the diseases of her generative organs; and perhaps no disease is more frequently unrecognized than cellulitis. The cellular tissue, being sponge like or honeycombed in structure, is adapted to the uses for which it was intended, allowing of the elevation of the uterus in gestation and its depression in prolapse.

Cellulitis may affect the entire cellular tissue of the pelvis, or it may be circumscribed and confined to a small space. In making a vaginal examination of a patient for the first time, we should always be careful to note any evidence of cellulitis, for otherwise we might use treatment which would be injurious. For instance, if we found a displaced uterus, and at once proceeded to replace it without any reference to the cellulitis already present, we would probably find great increase of pain, and the development of inflammatory symptoms which might be severe and alarming. Cellulitis may develop as a primary affection, or it may result from the

extension of inflammation from some of the pelvic organs or from the peritonæum. It was formerly claimed by authors that cellulitis only occurred as a result of displacement of some of the pelvic organs, or the extension of inflammation from some of them; but it is now admitted to exist as a primary affection, although the pathology of the disease is not as well understood as could be wished, and it is hoped that more light will be found ere many years have passed, and we shall soon come to understand more thoroughly the pathology of this important disease.

Prof. Emmet* claims that "cellulitis *most frequently* exists as a primary affection, and that *affections* of the ovary, uterus, etc., are due, very often, to some previous lesion in the cellular tissue. He holds that the uterus is entirely dependent upon the blood which is distributed through the cellular tissue, and that, as the nerve filaments reach the uterus by the same route, the connective or cellular tissue is the first and most exposed to the influences exerted through the blood-vessels, and, consequently, is more liable to become inflamed, as he who transports nitro-glycerine is more exposed to danger than he who is to receive it."

Women are most liable to this disease during their period of menstrual activity, though it occurs occasionally after the cessation of the catamenia (probably about five per cent). Quite young girls are stated by Prof. Emmet to be liable to the disease. How he goes to work to make up a diagnosis in their cases he does not tell us, and I can not imagine. True, we might diagnose general pelvic inflammation in case of young girls; but I judge it is impossible for any one to very satisfactorily differentiate, in their cases, as to the particular part affected, and I do not think it important, as treatment should be very similar in their cases, whichever organ or part in the pelvis is affected.

* Emmet, "Prin. and Prac. of Gynæcology," p. 260.

Etiology.

The causes which produce cellulitis in the female are, cold taken at or about the menstrual period, produced or accidental abortion, constipation, displacements of the uterus, cold taken after severe physical labor while in a perspiration, means used to prevent conception, severe and protracted labor, lacerations of the cervix uteri, the use of pessaries too long continued, strong vaginal injections, excessive coitus (especially soon after marriage), allowing of the too great and protracted distension of the bladder; pelvic, ovarian, or uterine tumors, etc. The tubercular diathesis, conjoined with some local irritation, the climacteric period, gonorrhœal infection, local phlebitis, etc., may produce this disease. Unsatisfied sexual passion in widows of full blood may also cause this disease; as it may also, in the case of the married, where the passion is excited but not satisfied, owing to incapacity on the part of the husband. Fruitful married women are less liable to cellulitis than the sterile or unmarried.

During the last quarter of a century the almost indiscriminate use of caustics to the os and internal surface of the uterus, by the allopathic medical profession, has been a fruitful source of cellulitis, which even their own authors are now willing to concede. How any body of intelligent, scientific, professional gentlemen could have adopted such a routine practice as this, causing such sad results in some cases (as they now freely acknowledge), and being of so little benefit in most cases, is truly astonishing. Too great faith in their leaders, and a blind following of their example, produced this unfortunate result, just as it did in the use of venesection and antiphlogistic treatment, so-called, almost universally used for many years by them, and now entirely, or almost entirely, abandoned for the tonic or the expectant treatment, which means stimulation, or the use of placeboes—or, as we say, blanks—and waiting for nature to accomplish a cure; the latter of which is cer-

tainly commendable, in that it shows either a great respect for nature and nature's God; or a distrust of the efficacy of their established routine, double-distilled, scientific treatment.

Symptoms of Pelvic Cellulitis.

The acute attack of cellulitis is usually ushered in with a chill, or at least chilly sensations, for a period varying from a few moments to several hours, when reaction sets in, and fever rises, with considerable pain in the pelvis. Sometimes the pain is sharp and piercing, at other times sore and aching—the sore, aching pain being most prominent in cases arising from excessive coitus or severe labor, while the darting, lancinating pain accompanies an attack caused from cold, either general or local.

The general symptoms of an acute attack of cellulitis are similar to those in acute attacks of vaginitis, ovaritis, metritis, cystitis, or peritonitis. In cellulitis a vaginal examination will generally reveal tenderness on all sides of the vagina, although the vagina itself is but slightly increased in temperature or color. There is an absence of the intense redness and spasmodic tenesmus, usually present in vaginitis; pressure upon the uterus produces little increase of pain, while in metritis this pressure could not be endured. The functions of the bladder are little disturbed, micturition being accomplished with tolerable ease, in great contrast to the extreme pain in this act accompanying cystitis. It will be understood I am now speaking of the recent attack of cellulitis, for, in some instances, when the disease is not arrested, the inflammation extends to all the pelvic viscera, and we have a case of general pelvic inflammation, as well as cellulitis.

Cellulitis may also be circumscribed. In this case it is somewhat more difficult of diagnosis. We then have local tenderness at the inflamed point, in connection with the general symptoms enumerated. Defecation is usually painful,

and constipation a prominent symptom. In the early stages the blood vessels, being full in the cellular tissue, and the circulation obstructed, a condition of congestion is present, which not only gives rise to the pain, as well as the tenderness on pressure, but soon causes effusion of serum into the cellular tissue, giving rise to a feeling like the vagina was surrounded with cotton batting, pressing it inwards and decreasing its size. We must be careful not to confound this narrowing of the vagina with recto-vaginal hæmatocele, as we may distinguish it by its presence in the posterior part of the pelvis entirely, and not affecting the anterior portion at all; besides, in recto-vaginal hæmatocele the size of the effusion (or the apparent tumor caused by the effusion) is much greater in the same length of time than is present in cellulitis. After two or three weeks we may have an abscess form posterior to the vagina, and greatly resemble in its physical features a recent hæmatocele; so time must be an element in making up the diagnosis, as also must the history of the case. Nausea and vomiting are often symptoms in these cases, as well as severe headache. Perhaps headache is the most constant symptom with which we meet in chronic cellulitis, though backache and a sense of weight in the pelvis are very common. Hysterical symptoms of almost any form are liable to be manifested in this disease.

There also exists, in a great many patients, a chronic form of cellulitis, where the symptoms of the acute attack have never been experienced, cellulitis being, in these cases, the result of the extension of inflammation from some of the pelvic organs or viscera, the symptoms of tenderness and effusion having been so moderate as to have been overlooked or ascribed to some other ailment. The pain in these chronic cases is usually of a burning character. The patient is often tortured with hot flashes, becomes easily fatigued, is very nervous, and complains of all manner of absurd and conflicting symptoms; is usually peevish, fretful, notional, and whimsical.

Sometimes she is emaciated, but is often of full habit, having a good appetite and digestion. In these cases a sense of weight in the pelvis and bearing-down pain is usually complained of, and pain in the back as well, especially after exercise. A physical examination, however, reveals no prolapse or version of the uterus, although there is a supersensitive condition of the entire pelvic contents, and often the tenderness is greatest in one or both iliac regions.

In cellulitis the passing of the sound into the uterus, even to the fundus, would produce no special pain, while in endometritis the pain would be intense from its introduction. This is an important point in differential diagnosis between endometritis and cellulitis. In the introduction of the sound for the purpose of diagnosis great care should be exercised that no violence is done the mucous membrane. In fact, this care is always necessary in making an explorative examination for the purpose of differentiating in a case where we find that pressure upon the os causes pain to be felt higher up, and pressure above the pubis causes some pain, and there is apparently some supersensitiveness on the sides and upper portion of the vagina, with only mild symptoms of inflammatory action, without hemorrhage.

The use of the speculum is hardly ever required in making the diagnosis of an acute attack of cellulitis. By separating the labia we may see enough of the vaginal mucous membrane to satisfy us, in connection with the digital examination, whether the case is one of vaginitis or cellulitis. In either vaginitis or cellulitis, the speculum causes too much pain in its use to cause it to be recommended, even in diagnosis of these cases; for I take it for granted that a digital examination should always precede a specular examination in all cases, in making an examination for the purpose of diagnosis; and we can learn enough by the introduction of the finger to assure us of heat and tenderness, the location of the tenderness and its extent, the amount of effusion and congestion

of the tissues, the position of the pelvic organs in the main; and, in the few cases where we are not satisfied there is not a flexion of the uterus, with digital examination, we can gently introduce the sound, and clear up that much of the diagnosis. I lay it down as a general principle of gynæcological practice that we should never attempt to introduce the speculum when a digital examination gives any considerable pain. (The tenderness should be first removed by suitable treatment.)

Prognosis.

The prognosis of cellulitis will be favorable, in most cases, of acute attacks, if treated promptly and rationally, terminating generally in resolution, leaving the uterus less movable than normal, however, owing to adhesions which usually form at some part of the location of the inflammation. We may also detect the band-like or corded feel of the folds of some portion of the vagina, generally its upper part. These are also caused by adhesions, and may offer considerable resistance to the advancement of labor, should gestation occur. In some instances, however, suppuration develops, and a pelvic abscess is formed, and may point in the vagina or find exit through the rectum, the opening of the abscess into the rectum being the more common. Or the abscess may open into the bladder in rare instances (only one case of this kind has come under my personal observation); or we may have blood poisoning from the absorption of the pus, in which case we have rigors and fever, with great nervous prostration, and death may result.

In occasional instances the pus has found exit through the small intestines, owing to adhesions between them and the sac of the abscess; and the pus may follow down the psoas muscle, and open in the groin; or it may pass through either sciatic foramen, and burrow under the glutei muscles, or it may become sacculated, and remain for years, causing a diagnosis of fibroid to be made; or it may be

entirely overlooked until, for some reason, some inflammatory action is set up, and even then it may be mistaken for a recent attack of cellulitis. Generally the abscess discharges voluntarily, or is evacuated artificially, at its most dependent portion, and the pus is very thoroughly drained off, leaving the sides of the sac of the abscess in contact, causing adhesions and a cure of the whole trouble with little treatment except of a general character. In chronic cellulitis we may look forward to a protracted, if not an incurable, case; for generally the ovaries and uterus are more or less involved, and the nervous irritability is such that the patient suffers much from prostration. The symptoms being somewhat obscure, the patients are said to go into a decline, which simply means they run down, and no one knows what is the matter with them.

Sterility is a common result of pelvic cellulitis, which is caused from the organization of the plastic material thrown out around the ovaries, making it impossible for the ovum to escape from the ovary; or sterility may, in these cases, be caused from the adhesion of the fallopian tube in such a way as to prevent its receiving the egg at all. Hence, we see that cellulitis may be a prime cause of ovarian inflammation and tumors, in that it may prevent the escape of the ovum, and it may prove the nucleus of a cystic or fibro-cystic growth. Cases which early come under homœopathic treatment are usually relieved without the formation of pus, and chronic cases are relieved with homœopathic remedies which have bidden defiance to old-school treatment. Occasionally, however, chronic pelvic cellulitis may take on active inflammatory action, and pus may form as in acute attacks, which go on rapidly to suppuration. One attack of cellulitis offers no immunity from subsequent attacks, but rather predisposes to them.

Complications in Pelvic Cellulitis.—The extension of inflammation from the cellular tissue to the peritonæum is

the most common complication in this disease, although metritis, cystitis, and rectitis are not of infrequent occurrence. If we do not see the case till several days after the attack, and fully developed peritonitis has resulted, we will have only the history of the case to aid us in diagnosing it from ordinary attacks of peritonitis. We have the tenderness on slight pressure over the abdomen, the tympanitic condition, wiry pulse, great prostration, constipation, loss of appetite, fever, frequently accompanied with profuse perspiration, as in ordinary attacks of peritonitis; but the history of the case will show that the pain in the pelvis was manifested one or more days before it occurred in the abdomen. A vaginal examination will show the tenderness of the connective tissue, and will probably indicate some effusion into this cellular tissue, showing that the origin of the disease was in the cellular tissue of the pelvis, and consequently the case is one of cellulitis complicated with peritonitis, and should be so designated. The gravity of this case is much greater than ordinary peritonitis, which is always serious.

The symptoms of rectitis, as a complication, are those present in dysentery in connection with those in pelvic cellulitis. There is diarrhœa, tenesmus, ineffectual urging to stool, with no operation, save a little mucus, or blood; while in peritonitis, as a complication, there is no urging to stool, not even a desire for stool, although the pain in the abdomen may be of great severity. When cystitis complicates a case of cellulitis, there is the frequent desire to pass water, accompanied with pain in the effort and a sensation as if there was more urine to pass, which can not be discharged. This is owing to the presence of mucus in the bladder, which is very tenacious, and difficult to dislodge, and its partial entrance into the urethra, as well as the inflammation in the bladder, causes the feeling of frequent desire to micturate. The presence of the urine in the bladder, even in small quantities, in its inflamed condition, tends to produce

this feeling also. These symptoms, taken in connection with those of cellulitis, clearly show cystic complication. The pain is not so much in these cases at the time of the flow of the urine through the urethra, as in urethritis, but follows the flow, as a sort of straining, or tenesmus. Urethritis may, however, be present, due to extension of the inflammation from the cellular tissue or otherwise, and in that case we will have the scalding, burning pain in the urethra while the water is passing.

Treatment.

In the first stage, or that of chill, *Arsenicum* is most prominently indicated, with the warm foot bath, and warmth to the limbs. The full warm bath, succeeded by a warm pack in a warm wet sheet, with the administration of large draughts of moderately cool water, will frequently establish the equilibrium of the circulation. In this case the disease is aborted in its first stage, and we can only denominate it as congestion of the pelvic organs.

It is not often, however, that we are called to a patient in this stage, and we usually find that reaction is fully established in the general system, and fever, with a rapid, wiry pulse, is present, although there is still evidence of congestion in the pelvic cellular tissue. The remedy indicated in this case is generally *Aconite*, although, if the cause is from excessive coitus or protracted and severe labor, *Arnica* should be alternated with the *Aconite*, and followed in a day or two with *Bry.* or *Mercurius*, if there is a tendency to suppuration. *Bell.*, *Hyos.*, *Plat.*, *Cimicif.*, etc., are sometimes indicated. (See their pathogenesis in works on Materia Medica.)

The hygienic measures necessary are, first, perfect rest in the recumbent posture, with the thighs partially flexed upon the abdomen. The patient should be enveloped in flannels from neck to foot. Warm vaginal injections with an elastic syringe should be used freely, with the patient recumbent, a bed-pan being placed under her to receive the water as it passes out

of the vagina. Warm injections per rectum are also of great service. The food should be very light and non-stimulating. Cold water may be drank freely. The vaginal and rectal injections of warm water should be used every three or four hours for some time, till the evidences of active inflammation subside. Should pus form, I prefer to evacuate it artificially in the vagina, if possible, as its opening into the rectum, colon, small intestines, or bladder, or even into the groin, makes a more troublesome case, and there is very much more danger of fatal results. Some cases result favorably, however, when the pus escapes through these outlets by ulcerative action.

Some cases of chronic cellulitis, sub-acute in character, as all cases of chronic cellulitis are (unless, from some exciting cause, acute inflammation supervenes upon the chronic sub-acute inflammation), will nearly baffle all the remedial measures and remedies we can employ. Here it is necessary to look well over the general system, and ascertain the functional derangement or organic lesion, if any there be, which may so affect the system as to keep up the disease or prevent its cure. Sometimes it will be found to be a displacement of the uterus, sometimes disease in the rectum; at other times we find its explanation in the tubercular diathesis of the patient, impurity of the blood, or some disease or tumor of the uterus or ovaries. Sometimes these difficulties can be relieved and removed, and sometimes not. If possible, we must, of course, remove the cause of the irritation, which, if we can accomplish, will enable us to get relief from the tenderness, backache, weight in the pelvis, etc., by the use of *Nux*, *Rhus*, *Ars.*, *China*, *Bryonia*, or *Pulsatilla*. When the disease is dependent upon impoverished or impure blood, we find great benefit from *Iod.*, *Ars.*, *Phytolac. dec.*, *China*, *Merc.*, *Thuja*, etc., as indicated. The application of a *Solution of Iodine*, ten grs. to the ounce, to the vaginal mucous membrane, by means of a brush, used through the speculum once in three days, with the

external application of *Colorless* or *Tr. Iodine* above the pubis, together with attention to the movement of the bowels regularly, will greatly aid in the cure of these cases.

Supporting the abdominal viscera by an abdominal supporter is often a great relief to the patient, and a measure calculated to be of service in the cure, as it relieves the tender parts from being pressed upon by the weight of the abdominal organs when in the erect posture. In the chronic form of cellulitis attention must be paid to the promotion of healthy digestion and assimilation, as well as the general nervous recuperation. Generous, easily digested diet, with moderate exercise and pure air, as well as medicine, are necessary. The exercise *must be* moderate, however; hard labor, or riding in a hard vehicle, over a rough road, could not be tolerated. Even sweeping carpets and making beds must be prohibited. Sexual connection must be forbidden. The tepid sitz bath, daily, is of much service, as is also a general sponge bath, followed by active friction to the extremities and back. Do not be inveigled into the use of anodynes, either by the stomach or by the use of that contemptible little instrument, the hypodermic syringe, which has done more harm than decades can eradicate, in the establishment of the opium habit. We, however, withdraw objection in case of cancerous disease (which is hopeless), and, perhaps, some other hopeless cases, as mangling from external violence of such severity as to preclude the hope of recovery. Listen not to the importunities of patient or friends; do for the patient what your judgment dictates. Cheer the patient with all the hope you can honestly give her, and explain the injurious after-effects of anodynes, and help her to be brave by your own tranquillity, and have firm faith in the remedies and means used.

The complications of cellulitis must be treated on the general plan laid down when they occur as separate diseases, using remedies singly, however, and not making a mixture

of remedies because you have a complication of diseases. If two or three remedies seem to be about equally indicated it is well to give one for a few days, then omit it, and use another for a time. We then get a better action of the remedy, and we also learn something for our own, or some one's, future use.

Pelvic Abscess.

Abscess in the pelvis, resulting from pelvic cellulitis, is not of very infrequent occurrence. We know of its formation by the occurrence of rigors and the soft, fluctuating feel. When we are certain that an abscess has formed, it is best to evacuate it if possible through the vagina with the long curved trocar.

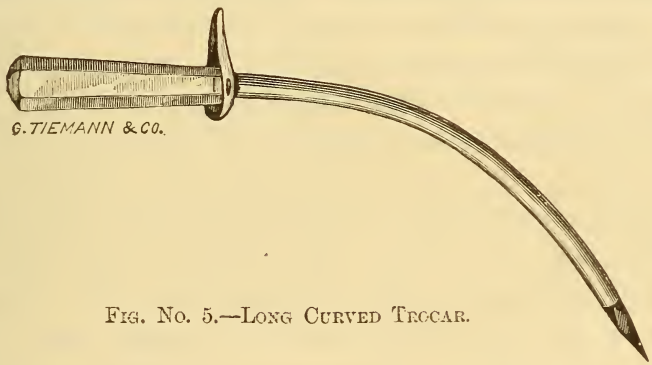


Fig. No. 5.—Long Curved Trocar.

Allowing the pus to remain can do no good, and it may do much harm by its absorption into the circulation, or it may point and cause ulceration in very inconvenient localities, as into the bladder, intestines, or peritonæum. Usually draining the abscess with the trocar allows the sides of the walls of the sac to come together and adhere, and causes a cure of the abscess; but if it does not, and more pus forms, we may evacuate it again in the same way, and follow the evacuation of the pus with injections into the interior of the sac of a *Solution of Iodine*, ten grs. to the ounce. Instead of the curved trocar, we may evacuate the pus with the Aspirator. (See chapter on Instruments, and Plates IX and X.)

CHAPTER XI.

CHILD-BED FEVER.

PUERPERAL PERITONITIS, PUERPERAL METRITIS, METRO–PHLEBITIS, AND PERITONITIS.

This disease, occurring as it does after parturition, is treated of in some works on obstetrics, but not in all, and, as it is one of the diseases peculiar to women, I deem it properly considered in a treatise upon "Diseases of Women," although very generally omitted in these special works. Puerperal fever indicates something more than a fever occurring after delivery. It consists of an inflammation of the womb, generally accompanied with peritonitis and following delivery but a few days. By some, the term has been restricted to the malignant, epidemic form of the disease. It is essentially an inflammation, accompanied with a severe fever, and it is more. It includes a blood poisoning, also. The inflammation may be seated mostly in the muscular tissue of the uterus; or it may be in the uterine veins, being then a uterine phlebitis; or it may mainly affect the peritonæal tissue; or it may affect all the pelvic organs, and extend to the abdominal viscera as well. The nervous system does not escape in this disease, and we have extreme prostration of strength very much like that which we have in typhus fever.

Unfortunately, the writings of authors of eminence upon this disease have been so conflicting, not only regarding its treatment, but also its symptoms and pathology, that the term "puerperal fever," unexplained and unqualified, conveys to the mind of the experienced, thorough physician no assurance of the real nature or severity of the complaint, unless he is aware of the ideas entertained by the speaker upon

this disease. During the last few years those of the profession who exercise most care in nomenclature and diagnosis have discarded the use of the term puerperal or child-bed fever, and use the terms puerperal peritonitis, or puerperal metritis, instead. This is much the more satisfactory method of nomenclature.

A few years since it seemed to me to be my duty to criticise the remarks of a prominent author, made to a large number of medical gentlemen of the North-west, in the parlors of the Grand Pacific Hotel, Chicago, upon puerperal fever, he including *phlebitis* of the extremities, *milk fever*, *pneumonia*, and *intermittent fever* (occurring in the puerperal state), as well as *abscess of the breast*, *septicæmia* as well as *pyæmia*, under the general head of puerperal fever. He had the perception and manliness to acknowledge the justice of the criticism I made, and expressed the hope that hereafter the profession would be more careful in medical nomenclature.

On the one hand, it might be considered that parturition, being a physiological process, it should not very materially tend to disease. On the other hand, when we consider the large dimensions to which the uterus attains at full term of natural gestation; the consequent displacement of the abdominal viscera; the pressure to which the kidneys, liver, and stomach are subjected; the obstruction offered to the free action of the bowels; and the consequent derangement of digestion and assimilation, we may wonder that disease is not a constant effect of this process.

When we consider the violent straining and tension to which the muscles of the body are subjected in the process of the expulsion of the child, both in natural and abnormal deliveries; the depression and exhaustion to the nervous system, caused by this process, we wonder more and more that the recoveries from confinement are as favorable as they are.

Any student, by making a careful study of puerperal peritonitis or metritis, will, from the history and description of the disease given by different authors, become convinced that it sometimes occurs epidemically, sometimes sporadically, and sometimes as the result of contagion or infection; and that it sometimes follows the easiest as well as the most severe labors; that it occurs in the robust as well as the weak; that there is generally evidence of blood poisoning; but whether it be from atmospheric conditions, or from the absorption into the system of poison from the person of the accoucheur, or the putrid matter within the uterus from decay of a portion of retained placenta, or from cold and the arrest of the natural secretions, he will not be prepared to say. He will feel sure, however, that either of these causes may develop the disease. He will be convinced that the accoucheur can not, with safety to the patient, attend cases of confinement while he has in charge a case of puerperal peritonitis, and that he can not safely dress suppurating wounds and then attend cases of confinement. He will also be convinced that a case of puerperal peritonitis may arise in the practice of any physician, in spite of the utmost care and caution on his part.

The nervous system is claimed by some to be the seat of all the derangements of the system, and especially puerperal diseases. M. Flourens* says: "The form of the nervous system determines the form of the entire animal, and the reason why it is so is plain; it is because, in fact, the nervous system constitutes the entire animal, all the other systems being added merely to serve and maintain it." Meigs† says: "That the nervous system is the only part or element upon which medicines, miasms, or contagions can act." (This theory should make a homœopathist of him, as in it is found one explanation of the perceptible action upon the system

* Analyse Raisonnée des Travaux de Georges Cuvier, page 88.

† Meigs's "Obstetrics," page 642.

of the minute dose.) But, however we may theorize, we may as well, first as last, admit that all cases of puerperal peritonitis do not result from the same cause; but to one thing we can adhere, that in every genuine case of puerperal peritonitis there is blood poisoning and nerve depression, and that a certain train of symptoms are necessary to indicate the disease.

Symptoms.

The first symptom which presents itself in an attack of puerperal peritonitis or metritis is a chill, either affecting the whole or a part of the body, and varying in severity from mild, chilly sensations to severe rigors, causing shivering and chattering of the teeth. This chill comes on generally without premonition, often occurring in those cases which have for two or three days, and sometimes a week after delivery, seemed to be doing well. In some cases, however, there is some premonition of the attack in an increase of the rapidity of the pulse previous to the chill, with a feeling of exhaustion or excitement.

The occurrence of a chill does not, however, indicate with certainty the attack of peritonitis, as it may be due to the secretion of the milk or the commencement of an ordinary intermittent or bilious attack of fever. In the attack of puerperal peritonitis there is fever following the chill, so there is also in intermittent and bilious attacks; but in the attack of peritonitis we have tenderness over a portion or a whole of the abdomen, generally commencing in its lower portion and extending upwards; we also have a wiry pulse, which we do not have in intermittent or bilious fever.

Pain in the abdomen and pelvis is another symptom indicative of this disease. This pain is greatly increased by pressure, even very gentle pressure often producing acute pain—sometimes the weight of ordinary clothing can scarcely be endured. The patient draws up the limbs

and flexes the thighs upon the abdomen. Great thirst is complained of, and the swallowing of cold water often causes vomiting. In some cases the mind wanders, in others, the patient insists that she is getting along nicely, seems unconscious of her condition, and does not seem to suffer pain except when some pressure is made over the abdomen, or she attempts to move in bed. Tympanites over the entire abdomen is soon manifested; though percussion is very painful we may use it enough to satisfy ourselves of the actual condition present, though it would be very unwise to subject the patient to frequent examinations by percussion. The tongue, at first red or furred in the center, with red edges and tip, becomes dry and fissured. There is inability to obtain rest in sleep in most cases, though sometimes an almost constant drowsy, semi-comatose condition is present.

Profuse perspiration is sometimes a constant symptom after the first few days of the disease, although the pulse remains frequently up to 130 or 140 beats per minute. It becomes softer in favorable cases, and gradually diminishes in frequency. Sometimes the skin remains dry and hot. The temperature of the body is high, ranging from 103° to 105°. As a general rule, the higher the temperature the more grave the case. Dr. Blundell* has given the term hidrosis, or hidrotid fever, to this disease, when characterized by very profuse perspiration. He divides these cases into seven varieties, "the *ultra malignant*, the *malignant*, the *acute*, the *lingering*, the *mutable*, the *fugacious*, and the *remittent*" (which is splitting hairs when we have no use for the hair). It amounts to no practical advantage, but would tend to make more intricate that which is poorly enough understood at best when made as plain as possible. The secretion of milk is generally arrested, and the child has to be fed artificially. The bowels are usually constipated. This is a more favorable symptom than diarrhœa, as diarrhœa in this disease indicates that the peritonitis has

* "Obstetricy," by Costle, p. 770; Ramsbotham, p. 545.

enteritis as a complication, greatly increasing the gravity of the case. There is great prostration of strength, with entire loss of appetite. The breath is offensive. The lochia is generally arrested, and the odor of the vaginal discharge (if there is any) is very putrid and nauseating. The eye looks glassy and inexpressive. The countenance is sallow, dejected, and ghastly. Sometimes a metastasis of the inflammation takes place, and the disease suddenly seems to leave the peritonæum and attack the pleura; but in these cases there are not all the symptoms of puerperal peritonitis fully developed, and the case is one which some authors, especially Professors Ramsbotham and Keating, have denominated false peritonitis, which is more of a neuralgic than inflammatory condition, though it manifests many symptoms indicative of genuine puerperal peritonitis. Sometimes pain in the back is more complained of than any thing else. Frequently there is almost an entire arrest of the secretion of urine, and in these cases the pain in the back is doubtless due to congestion of the kidneys, causing the arrest of the natural secretion. Cold hands and feet I may also mention as generally present in this disease, although the body is unnaturally warm. Blueness of the skin, with obstructed respiration, may be sometimes noted.

Etiology.

Upon the cause of puerperal peritonitis there is a great diversity of opinion. From my own experience, and all I can learn from authors and the experience of my brethren, I am of the opinion that the causes are various, but producing a uniform effect upon the nervous system through the agency of the blood, sometimes by inhalations of poisonous gases, sometimes by absorption of poisonous gases, or matter in the uterus, and sometimes from cold. The arrest of the process of involution of the womb after labor, on account of lacerations of the cervix, makes it requisite that there should be

considerable discharge per vaginam. An irregular contraction of the womb, so as to cause retention of this effete matter, may cause the generation of such poisonous gases as might develop the phenomena we witness in this disease. The retention and putrefaction of a bit of placenta may produce the same result. The removal of so much pressure as has been exerted upon the abdominal viscera by the gravid uterus tends to render the parts liable to congestion and subsequent inflammation. Doubtless epidemic influences are such, in some instances, as to merit the term contagion, though it is clear that contagion is not necessary to the development of the disease. The coincident occurrence of epidemics of erysipelas and puerperal fever have led some to suppose the diseases were interchangeable; but this manifestation is doubtless simply the effect of the atmospheric conditions which have favored the development of these diseases, the nature of these conditions of the atmosphere being as yet unknown.

Prognosis.

Sporadic cases will usually terminate favorably under proper treatment; but in severe epidemics a considerable number will be lost under the best treatment. The disease, when terminating favorably, generally results in resolution, but sometimes leaves an effusion of serum in the peritonæal cavity, called abdominal ascites. This may be absorbed by the powers of nature, assisted by remedies, or require artificial evacuation by tapping.

Complications.

The extension of the inflammation from the uterus and peritonæum to the cellular tissue, ovaries, etc., is not infrequent, and sometimes causes sterility, from the effusion of plastic lymph around the ovaries, as in pure cellulitis; or pus may form in the cellular tissue, or between the layers of muscular tissue, in the uterus, or in the peritonæal cavity. In

the latter case it is rapidly fatal. Cystitis, pleuritis, puerperal mania, or cerebral meningitis sometimes complicate the case.

Post-mortem Appearances.—These are quite uniform. The abdomen is large and tense. On opening it, there is an escape of fetid, nauseous gas. The peritonæum is found highly vascular, with discolored patches, and some evidence of pus at these points. The omentum is thickened, and a considerable quantity of turbid serum is found in the peritonæal cavity. The womb is sometimes found to be normal in appearance; at others so soft as to allow of being easily torn to pieces with the fingers.

Treatment.

If we are so fortunate as to see the patient during the onset of an attack while there is coldness or rigors, *Ars. alb.* is indicated, administered in the 3^{x} trituration, in the dry state, upon the tongue, every quarter or half hour. Place the feet in a very warm foot bath. This is best done in this case by allowing the patient to lie upon her back in bed, with the limbs drawn up, and the feet placed in the small foot bath-tub, which can be slipped under the bedclothing. The tub should be well warmed before being used, so as not to chill the patient should she chance to hit her limbs against its edges.

As soon as reaction is established, *Aconite* in low dilution, alternated with *Sulph.* is demanded, and should be continued until free diaphoresis is established. In place of *Sulph*, *Kali chlo.*, 1^{x} trituration, given every two hours, is of great service. After the perspiration has continued for several hours, blanks should be used for a time, to allow us to see the condition of the patient when not taking medicine; if fever is found to be mostly gone for a few hours, and the case shows clearly that the attack was not due to the secretion of milk (it having been secreted before the chill, or it is

too early for the milk to come), we do well to give one gr. doses of *Sulph. Quinia* every two hours for a day or so, especially if we have a white coating upon the tongue, and aching of the limbs is complained of. If nausea is a prominent symptom, together with general aching, *Ars. alb.* should take the preference of the *Sulph. of Quinia.* In case fever returns, there is no further use for *Quinia.* We must use either *Kali chlo.*, *Sulph.*, *Carbol. acid*, *Iodine*, or *Ars. iodid.*, with intercurrent remedies, as indicated. They will be found among the following: *Bell.*, *Aconite*, *Bry.*, *Rhus tox.*, *Apis mel.*, *Verat. viride*, *Merc.*, etc. When convalescence is established, *China*, *Nux*, *Puls.*, etc., are useful according to their most prominent homœopathic indications. During the greatest activity of the fever, *Aconite* low has served me well, generally in alternation with *Iodine* 6^{x} or *Sulph.* 30^{x}. *Bell.* takes preference of *Aconite* if the dullness of the sensibilities is the most prominent symptom. *Verat. viride*, so useful in pleuritis, I have *not* found satisfactory in peritonitis, though some have claimed to obtain excellent results from its use in this disease. Beef tea is the most satisfactory diet; cool water may be given freely; hot teas and stimulants are hurtful; warm compresses to the abdomen are used by many, but, on account of their dampness, are not very desirable. Where there is extreme tenderness the compress should be wet with warm hop water, and kept *in situ* with a flannel bandage. In most cases the dry flannel bandage, evenly applied, is all the local application necessary. Vaginal injections of tepid water and castile-soap, followed by an injection of *Liq. Soda chlo.*, one part to six of water, are of service—using the injection of a temperature high enough not to chill the patient. Intra-uterine injections of *Solution of Iodine*, two to five grs. to the ounce, are sometimes promptly beneficial in very bad cases, especially when the evidence is clear of the suppurating condition in the interior of the womb.

Good air is another necessity in the successful treatment of puerperal peritonitis, or metritis. The old style of keeping the patient in a small room, with every crevice carefully closed to prevent the ingress or egress of a breath of air should never be followed; but, on the contrary, see to it that a free supply of fresh air is admitted to the sick-room, and abundant means are secured for the passing out of the impure, poisonous gases, which are always present in great amount. Do not be satisfied with a small opening for the ingress of fresh air; but have two openings so the air in the room may circulate, taking care that the patient is not in a draft. Let her be well protected with warm coverings, and let these, as well as her personal clothing, be changed often. There is no good, but a positive harm, in allowing the bedding and patient's clothing to remain days and weeks without change. Let the patient be bathed often, and wiped or sponged off frequently, also, using a little soda in the water when the fever is high, and a little Bay-rum when there is less fever.

Keep most visitors out of the room, and, if possible, away from the house. They often are a positive injury by disturbing needed rest, and exciting alarm by unwise though well-meant solicitude.

The complications of this disease must be treated according to the peculiar conditions present, and the urgency of the symptoms, taking care not to compound the remedies, using one for a few hours or a day, singly, and then changing to another, which the complication seems to demand; the alternation which I have already mentioned being in the giving of some antiseptic remedy in alternation with the one especially indicated in that particular case. I am well aware that some homœopathic physicians believe nothing in antiseptic treatment. So far as I can get at their objections to it, they are due to the fact that the term has been used by allopaths. Now, the reason for the faith which is in me is

this: I believe that in the genuine case of puerperal peritonitis we have a blood poisoning which has a tendency to develop a pyæmic condition of the blood and the consequent depression of nervous strength, which develops the *Diathesis seu Infectio purulenta.* Now, if this is not indication enough for the giving of antiseptic remedies, then there are no indications for remedies. If we can not give antiseptics, neither can we use any kind of antidotes to poisons, and really an antiseptic is an antidote. If it can be explained in any way which does not show its antidotal qualities, I am mistaken.

I will digress just here to remark that in the treatment of Scarlatina Maligna, Diphtheria, and Epidemic Cerebro-Spinal Meningitis, the need for antiseptics is equally great, and they prove as eminently beneficial. Without their use I would not take the responsibility of a case of either disease.

CHAPTER XII.

HOMŒOPATHIC REMEDIES.

Desiring to condense as much as possible, we make a few suggestions regarding homœopathic remedies. We do this, not to interfere with works upon Materia Medica, or Therapeutics, but that the reader may understand the opinions we entertain regarding them and their action on the system. Having used them now over ten years, and having previously graduated in allopathy, and practiced it for upwards of a decade, we may, perhaps, offer some practical hints, and we say, unhesitatingly, that we consider homœopathic medication the more speedy and certain curative treatment, and we offer our understanding of its *modus operandi.*

Attenuation.—This term has been so often confounded with potency that many have come to use the two terms as synonymous. This seems to me to be a grave error, and has led to much hard feeling on the subject of high and low potencies.

As I understand Hahnemann, in his work on "Chronic Diseases," Vol. I, when specially teaching the preparation and nomenclature to be used, and as I find Jahr and Grüner's "Pharmacopœia," as edited by Hempel, contains the same directions *verbatim*,* I must conclude there was in the early days of homœopathy no idea that attenuation and potency were synonymous terms. There, we learn in plain English that the 1^{c} trituration is to be called the 100th potency; that the 2^{c} attenuation is to be called the 10,000th potency; and that the 3^{c} attenuation is to be called the 1,000,000th potency.

* Jahr and Grüner's Pharmacopœia, by Chas. J. Hempel, pp. 4, 5, 6, and 7. Also see tables on pp. 32, 33, ibid.

There is no chance to deny that these were the plain instructions of Hahnemann, and were quoted and appropriated as authority by Jahr and Grüner and Hempel. If these were the plain instructions of these fathers of homœopathy, why should we not adhere to this nomenclature still? If we did, we would hear no one speak of the 200th potency, as there is no intimation in the works quoted that it is possible to make any attenuation that should be called 200th potency. The 30th potency sometimes mentioned is probably intended to mean the 30th attenuation.

Trituration, attenuation, or dilution may be used as synonymous, as regards strength of medicine (trituration is attenuation with sugar of milk; dilution is attenuation with alcohol), but potency is quite different, as I have shown from Hahnemann's own teachings. The 10,000th potency, as I understand it (and as Hahnemann, Büchner, Grüner, and Hempel teach), indicates the 2d attenuation on the centesimal scale, and the 4th on the decimal scale.

On account of the confusion of the terms potency and attenuation, much controversy has arisen in the profession as to the comparative merits of high and low potencies, which need not have existed had it been understood as Hahnemann taught in his work on "Chronic Diseases," just quoted, for all would have seen that the low trituration or dilution was the same as the high potency. After having given much time to the study of this matter I am fully convinced that Hahnemann never conceived of using remedies carried above the 30th attenuation. The late lamented Dr. Carroll Dunham, of New York, carried up several remedies by dilution to the 200th attenuation and claimed excellent effects from their use, as have several other excellent gentlemen.

Drs. Swan and Finkie have claimed to make high dilutions, which they have called potencies, by a process of mathematical calculation as to the attenuation produced by means of a certain amount of running water through a tube, in

which had been placed a small amount of medicine. Allowing the water to flow through the apparatus a certain number of hours, they have calculated that a certain attenuation was reached. They call the manufacture of remedies in this way the *fluxion process.* They, and many others, have reported cures with these high dilutions, the height of the potency of which is beyond human calculation. I will not deny the efficacy of these preparations, but will say they doubtless would have astonished Hahnemann had they been invented in his life-time; and if it is given to disembodied spirits to scan the acts of those below, what must be the emotion of Hahnemann's spirit at the heights of fancy, imagination, and credulity reached by some of his disciples!

We have found, from our own experience, that from the 2^{x} to the 6^{x} attenuations, or, if you please, from the one hundredth to the one millionth potencies (which is saying the same thing in different language), is the strength of medicine we find acts satisfactorily to us. Sometimes mother tinctures may act better; sometimes it may be best to use potencies higher than the one millionth. Did we know the strength of the medicine used in the provings, we might better select the attenuation in treating cases of disease. The 3^{c} being suited to overcome symptoms indicated by provings with the first on the centesimal scale, while the first attenuation will overcome those provings, not toxicological, made with mother tinctures; and mother tinctures are to be used in the treatment of those toxicological symptoms produced from poisonous doses of the remedy, when, of course, these symptoms are produced from disease. To overcome toxicological symptoms while the drug is still acting, of course, antidotal treatment is to be at once used. We feel convinced that the minute quantity of a given remedy produces on the system effects directly opposite to those produced by that remedy in large quantity. Hence, we have an explanation of the action of the properly selected homœopathic remedy in any given disease. The remedy is

selected because of the similarity of the symptoms we have in the case to those we know the remedy produces when given in considerably greater quantities than we use in the cure, the curative action being that of correcting these symptoms, or, in other words, antagonizing them. The giving of a single remedy should be the rule, avoiding all alternation of remedies. I have known a physician to give five different remedies in the same case at the same time. Though he gave them separately, the intervals were sometimes only ten minutes, and the people found it impossible to keep the run of the remedies, and they changed physicians. Success never perched on that physician's banners, though he was educated in Germany, and talked learnedly of symptomatology, and ignored pathology. Every physician should seek to add something to the general stock of knowledge possessed by the profession. To do this it is important, at this age of the world, that we learn more of individual remedies, given singly, without alternation.

The affinities which remedies possess for some particular parts of the body, or some particular organ of the body, can not be explained. We only can observe that it is so. We can no more tell *why* it is so than we can explain the law of gravitation or cohesion. We may observe the phenomena, but at last we have to say, God made it so. Why opium in minute doses is a stimulant, and in large ones is a sedative, can we explain, more than to assert, it is so?

We learn, however, how to apply the remedy from our knowledge of its action. Homœopathists use remedies for their primary action, or the action produced by the minute dose, while allopathists use remedies for their secondary action, in a large dose. Hahnemann discovered the law that the minute dose cured symptoms produced from disease which were characteristic of the remedy in large doses when given to the healthy man; hence we have a law to guide us in the selection of a remedy, while the allopathist has none.

Does any allopathist dare say our theories are unphilosophical or untenable? Does he call a homœopathic physician a quack because he has adopted an exclusive dogma, as he says? Then let him seek light in his own U. S. Dispensatory, where I found mine. Let him note the action of the small dose, and compare with the action of the large dose, as there laid down, and he will find enough to convince him of the universality of the law just mentioned. Then let him try in practice the application of this principle, and he will soon be able to declare that he, too, has found, not only joy in believing, but joy in practicing as well.

CHAPTER XIII.

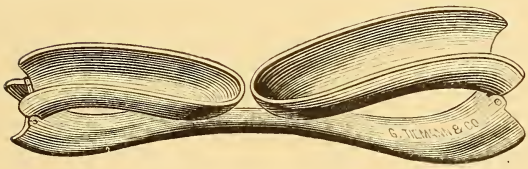
INSTRUMENTS.

THE use of instruments has been sadly abused by the profession in the diagnosis and treatment of the Diseases of Women, to the extent of causing some thoughtful medical gentlemen to condemn their use *in toto*. We do not go this far, and still we are free to condemn many of the instruments in frequent use, especially most pessaries, and also the constant use of the speculum, uterine dilators, hysterotomes, etc. These instruments are occasionally useful; but probably not one-fourth as often as some have been in the habit of employing them. We shall present only those instruments in this work which we can recommend (about eighty in number), and we devote one chapter exclusively to their consideration, that the student may learn something of the uses and advantages of them, as well as be cautioned against their abuse. There is no work on Diseases of Women now published (1880) which, in our opinion, is fully up with the times in the matter of gynæcological instruments. This is strikingly evident in the matter of speculums, Cusco's being the best bi-valve published, and Sims' original speculum being the best one presented as a retracting speculum—all except Richardson having omitted Dawson's improved Sims' speculum. (See Plate III.)

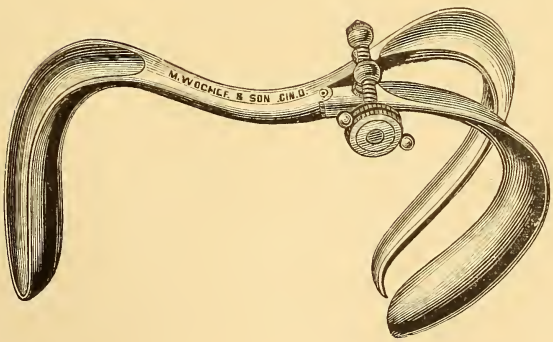
This has one of the blades slit in two, and fixed with a screw so they may be separated, which is a great improvement in enabling us to bring into view the walls of the vagina or the cervix uteri. If we desire to use the instrument in its original form, we have but to screw the divided blade together and we have it. This instrument we ordi-

Plate III.

SIMS' ORIGINAL SPECULUM.

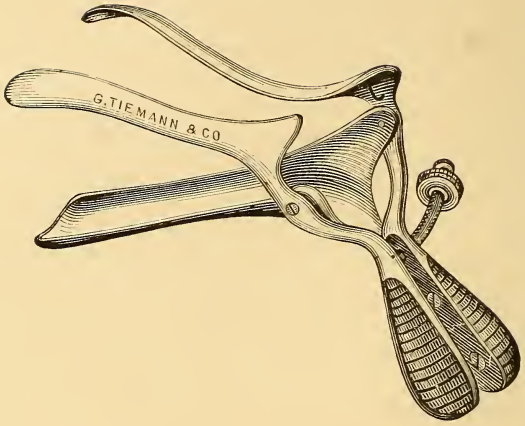


SIMS' FOLDING SPECULUM.



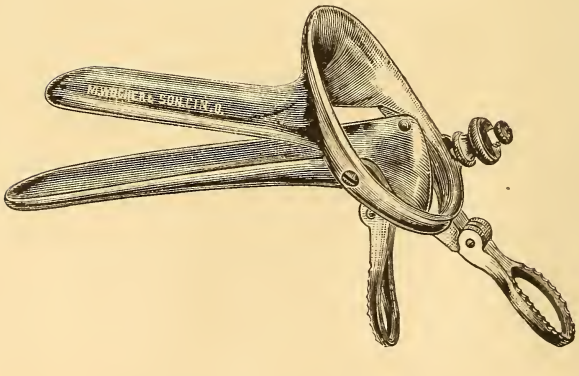
DAWSON'S SIMS' IMPROVED SPECULUM.

Plate IV.



NELSON'S TRI-VALVE SPECULUM.

FURGUSON'S MIRROR SPECULUM.



WOCHER'S BI-VALVE SPECULUM.

narily only use in operations for the treatment of vaginal fistulæ, uterine polypi, or lacerations of the vagina, or cervix uteri. Whenever we do need to use a Sims' speculum the advantage of the divided blade is obvious, as it can be opened or closed during the operation at our pleasure.

The speculum which we use for ordinary vaginal examinations, when they appear necessary, and for bringing the os and cervix uteri into view for ordinary treatment, is the bi-valve made by M. Wocher & Son, of this city. (See Plate IV.)

This speculum combines the advantages of Cusco's handles, Higbee's screw on the side, and Taylor's blades, with the wide crest on the upper blade, to keep the flesh and hair of the labia out of the way. In our experience the advantage of having the upper blade shorter than the lower, as in Taylor's instrument, is very great. Taylor's speculum has to be opened with the screw, which is not so convenient as the handles of Cusco's, but Cusco's blades are of equal length, and it has not the wide crest on the upper blade. Wocher seems, in his instrument, to have combined the best parts of all the others, and left out their objectionable ones. The instruments are made of three sizes.

Nelson's tri-valve speculum—Plate No. IV—is a very convenient instrument, especially in those cases where the vagina is very large, loose, and flabby, as it distends the anterior walls of the vagina in a lateral direction. It is very good in office treatment, but can not be carried in the pocket so conveniently as Wocher's bi-valve, or Sims' folding speculum. (See Plate III.)

Furguson's round mirror speculum is convenient to have at hand, to examine partially a suspected case of gonorrhœa or syphilis where we do not wish to introduce those we daily employ. The instrument is cheap, and is universally known. We also put them to a different use from that of making vaginal examinations. We employ them as vaginal

dilators, and to admit the atmospheric air in cases of prolapsus, or a tendency to this displacement, having the patient recline, with the hips elevated, while it is inserted. (See chapter on Prolapsus Uteri.)

Sims' vaginal dilator, Plate VI, is all right in cases of vaginismus, or a contracted vagina, first smearing the vagina with *Belladonna ointment* before its introduction; but in cases where we wish to dilate the vagina to admit atmospheric pressure direct to the uterus they are useless, as they are closed at one extremity.

UTERINE SOUNDS.

The uterine probe, or sound, is a useful instrument in diagnosis of uterine disease and displacement. It should always be used with skill and care. No considerable force should ever be used in its introduction, or any manipulations with it after it is introduced. Used carelessly, it may be a cause of much evil; but, if used with care, it is not injurious.

Simpson's uterine sound has been much used, but it is too stiff. The steel sound, which can be easily bent with the fingers, is to be preferred, as it is often of great advantage to be able to change its curve. The steel sound should not be larger just at the point (see Plate V), as uterine sounds are usually made; neither should it be sharp or more pointed at the end, but should be of uniform size for four or five inches from its extremity. It is well to have notches in the sound, at intervals of one-half inch, that we may note more readily the length of the uterus. Dr. Skene has invented a very good sound for measuring the length of the uterine cavity (see Plate V). It has a slide which is drawn back when the sound is introduced, and, when fully inserted, the slide is pushed up against the os, and we can determine by it just how far the sound has entered the womb.

Hard rubber uterine sounds should never be used unless

Plate V.

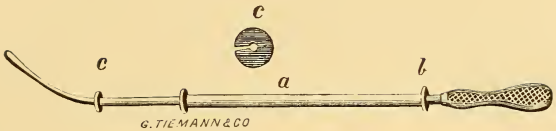
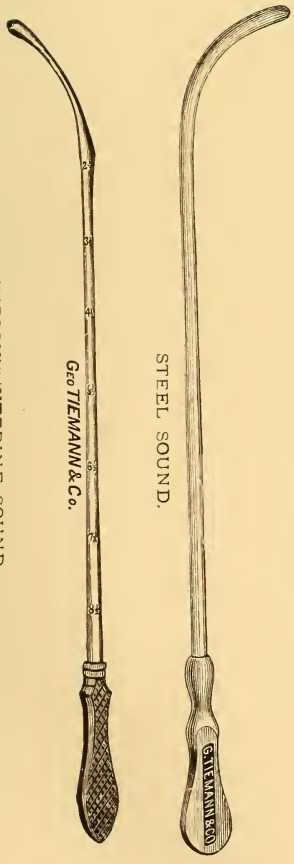


Fig. 1

SKENE'S SOUND.



STEEL SOUND.

SIMPSON'S UTERINE SOUND.

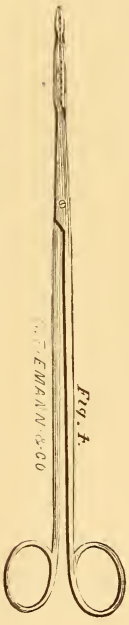
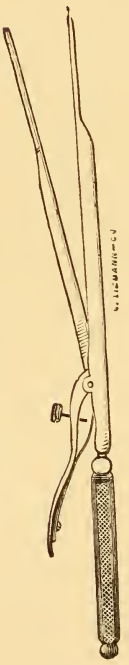


Fig. 2.

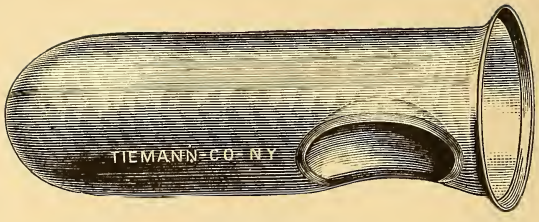
UTERINE DRESSING FORCEPS.



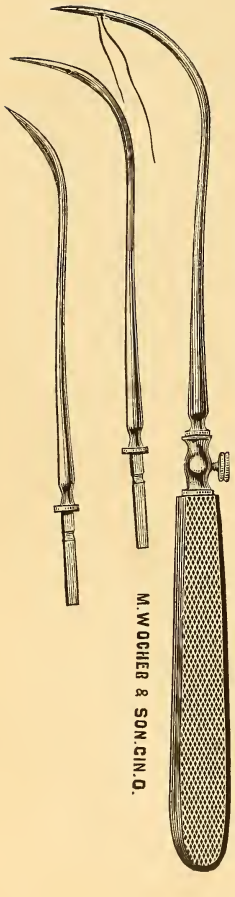
SIMPSON'S HYSTEROTOME.

WHITE'S HYSTEROTOME

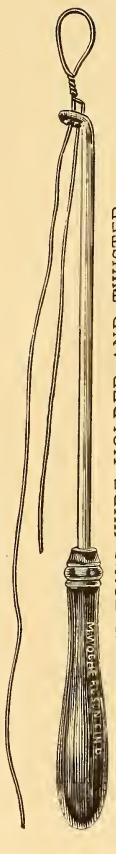
Plate VI.



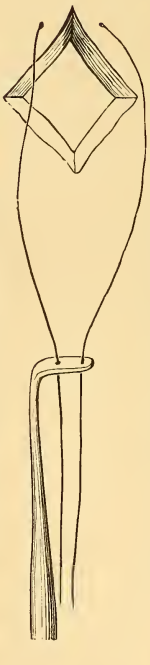
SIMS' VAGINAL DILATOR.



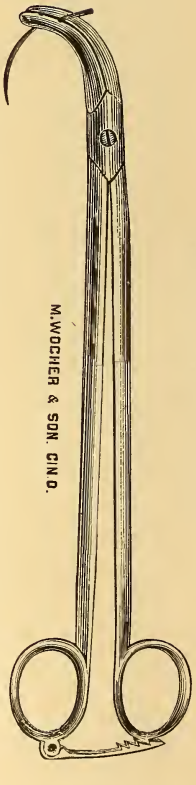
IMPROVED PEASLEE PERINEUM NEEDLES.



EATON'S WIRE HOLDER AND TWISTER.



METHOD OF USING WIRE HOLDER AND TWISTER.



EATON'S NEEDLE HOLDER.

great care is taken to warm them by putting them in warm water. When cold they are liable to break, even from slight pressure.

Caution.—The physician should always be sure pregnancy does not exist before he attempts the introduction of the uterine sound.

Cellulitis also contra-indicates its employment, even for purposes of diagnosis. The use of the sound, or even any considerable manipulation with the finger, in cases of cellulitis, is very likely to awaken an increase of the inflammation.

The use of the sound gives us information of the presence of stenosis of the uterus, tenderness and flexions of the organ, the size and attachment of fibrous polypi, and some information regarding intra-mural fibroids, etc., etc.

HYSTEROTOMES.

The hysterotome is an instrument for incising the interior of the cervical canal. It is occasionally needed in stenosis of the cervix; Its use must, in these cases, be followed by the daily introduction of the bougie smeared with vaseline to prevent the adhesion of the cut surfaces, and the consequent diminution of the size of the cervical canal. I prefer Simpson's or White's. (See Plate V.)

EATON'S NEEDLE HOLDER.

In addition to the straight needle holder already mentioned for sewing up longitudinal lacerations and fistulæ of the vagina, the gynæcologist needs an instrument for placing sutures in a transverse laceration or fistula. This is accomplished with my needle holder, as can be readily seen from the cut, Plate VI. It enables us to insert the needle into the vaginal tissues from above downwards with the same facility with which we use the straight holder in stitching from side to side, for which purpose my holder may also be used by grasping the needle further down on the blades.

To fasten or twist the wires after the sutures are placed in a vaginal laceration, or either form of vaginal fistulæ, we use our wire holder and twister. (See cut of wire holder and twister, Pate VI.) Pass the ends of the wire through the two holes in the end of the holder, make traction on the wires with one hand, and slide the instrument up to the lacerated tissues with the other—this approximates their edges. We then give the instrument two or three turns, with the fingers holding it, and the wire is twisted and the suture secured. We now slip the twister off the wires and cut

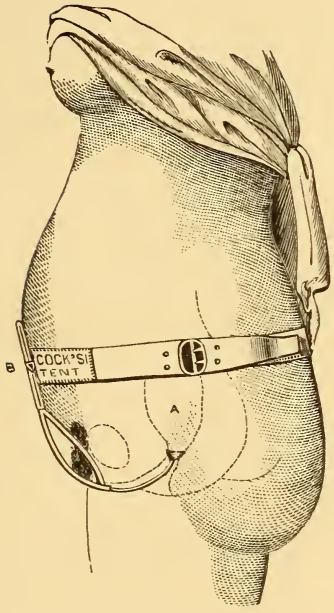
Fig. No. 6.—Long Curved Scissors.

them with the long, curved scissors. This instrument makes the twisting of the wires high up in the vagina a very easy operation.

We present Palmer's uterine dilator (see Plate VIII), not to advocate its frequent use, but because rapid dilatation of the cervical canal of the uterus is sometimes necessary; and when so, we prefer to use "Palmer's Uterine Dilator." With it we can make the dilatation as gradual as we please, and still, with the aid of the screw in the handle, maintain an even and regular expansion, and increase or diminish it at will. The blades which are inserted into the os are slender and slightly curved, and still not too pointed nor too blunt, as are some others.

Rapid dilatation is most frequently called for in cases where women have passed a piece of a hard rubber probe or a stick into the uterus and broken it off; or have passed in short pieces of whalebone and lost hold of them. I have been called to remove foreign substances of this character from the uterus in several instances where dilatation of the

Plate VII.



BABCOCK'S SUPPORTER.

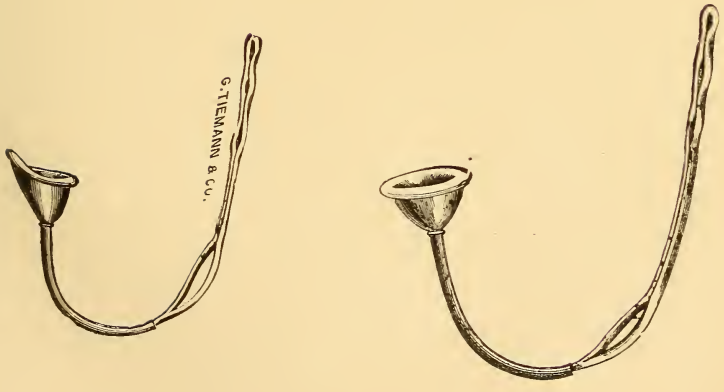
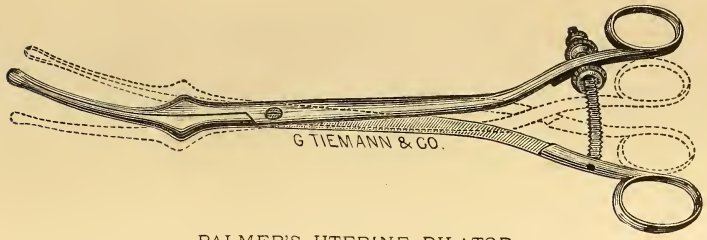
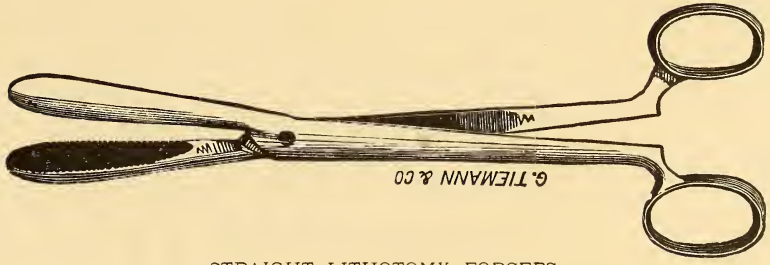


Plate VIII.



PALMER'S UTERINE DILATOR.

CIVIALE'S LITHOTRIPTOR.



STRAIGHT LITHOTOMY FORCEPS.

os uteri internum, as well as externum, had to be accomplished rapidly.

Occasionally its use facilitates the getting at an internal uterine polypus, where we have but a short time at command. Very rapid dilatation is in most other cases objectionable, in that it lacerates the tissues, and, in their healing, causes somewhat of a cicatrix, which interferes with the relaxation and dilatation of the os in labor subsequently, and may cause stenosis, or even atresia of the cervical canal, and prevent impregnation, arresting the menstrual flow, and producing hæmatometra.

Hence, whenever rapid dilatation is used, care should be taken to keep up some degree of expansion till the tissues are healed. Passing into the cervix every two days a bougie smeared with *Vaseline*, is a good way to accomplish this.

PERINEUM NEEDLES.

In operating for lacerated perineum it is most convenient to use Peaslee's improved perineum needles and holder shown in Plate VI, whether we wish to use the quill or ordinary interrupted suture. The needles fasten into the handle with a thumb-screw, and the eye of the needle is near the point as shown in the cut. This is much more convenient than having the needle screw into the handle. Having the three needles threaded before commencing the operation there is no delay in placing the sutures, as one needle can be taken from the handle and another, all threaded, inserted almost instantly. (See the old form, Plate XI.) In an emergency the largest sized surgeon's curved needles may be used to place interrupted sutures in the lacerated perineum; but the regular perineum needle is much to be preferred, when we can have it, and in placing the quill sutures this, or a similar needle, is absolutely necessary. (See chapter on Lacerated Perineum.)

Pease's staphylorraphy needle represented by Fig. No. 7, was invented by G. M. Pease, M. D., of San Francisco.

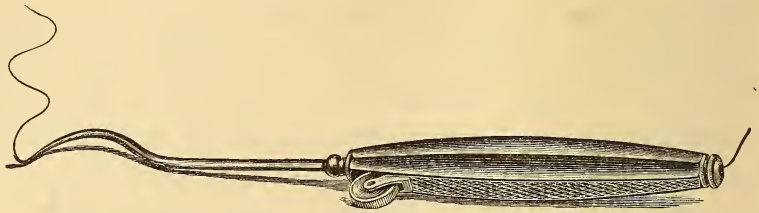


Fig. No. 8.—Pease's Needle.

This needle is described in the proceedings of the Pacific Homœopathic Medical Society, 1874–6, and in the proceedings of the American Institute, 1871. The needle is useful in operations for vaginal fistulæ, as well as cleft palate. The silver wire is propelled through the needle (which is conula shaped, with the eye near the point), by means of the little wheel on the side of the handle.

PESSARIES.

I am well aware that medical gentlemen of high standing advocate the use of pessaries, even those of hard rubber; but they have to acknowledge that, unless used with skill and judgment, they may do much harm, and that the physician must have experience, as well as a mechanical talent, to adjust and select them properly (see Emmet's "Prin. and Prac. of Gynæcology," one of the most prominent of the old school books, which acknowledges *all* this, and still advocates their use very strongly). Now, how many medical men have skill, judgment, experience, and mechanical talent? Can we say that more than one in ten have all these? If not, then must we recommend the other nine-tenths to use pessaries indiscriminately to the injury of their patients?

Simply introducing a pessary into the vagina is not using it with skill, even if it be so small as to cause no pain. Besides, the use of them, as has been the custom, and the theory regarding their beneficial effects, have been en-

tirely erroneous and founded upon erroneous ideas of the etiology of displacements, as we will more fully show in the chapters upon Displacements of the Uterus.

While we condemn pessaries from a conviction of the injury they have done and a belief that they may, in nearly all cases, be discarded, I am aware that, in some few cases, where we can not manage the patient or obtain her co-operation, and where a patient is obliged to be continuously traveling or standing, and in the case of old women, where we can not hope for a cure, some form of soft pessary may be advisable. In these exceptional cases we use the inflatable rubber pessary or the elastic ring. The abdominal supporter must always be used in connection with even these pessaries, as otherwise the uterus is placed between the pressure of the bowels from

Fig. No. 8.—Elastic Ring Pessary.

Fig. No. 9.—Elastic Rubber Pessary, with Tube and Stop-cock.

above and the pessary from below, and injury readily results in the way of *flexions* of the uterus, or *inflammation* of this organ, the cellular tissue, or the ovaries.

Before inserting a pessary of any kind, the bladder and bowels should be evacuated, and the patient should recline with her hips elevated, with the body low, and the uterus should be replaced before the pessary is introduced into the vagina. Then an abdominal supporter should be applied before the patient rises. The pessary should be removed and cleansed at least once a week. It should not be worn, in any case, but a few weeks, as a rule.

The Babcock Supporter holds the womb up in a cup-

shaped instrument. (See Plate VII.) It is objectionable in retaining the secretions and in being too stiff. The cup is supported by a steel shaft, which is held in position by a belt around the lower portion of the abdomen. The shaft of steel may be moulded to the form somewhat. In some old women suffering with prolapse this instrument is worn with comfort; but ordinarily it is found that it causes pain and irritation. It will sometimes answer a good purpose where the atonic condition of the system is marked, and where we can not do better. The instrument, if used, should be often removed and cleansed. The different shaped cups make it adapted to varieties in the shape and location of the os uteri. (See Plate VII.) M'Intosh's Uterine Supporter and Abdominal Supporter Combined is sometimes found useful; but internal support is to be avoided in all cases where it is possible to do so. (See Treatment of Prolapsus Uteri.)

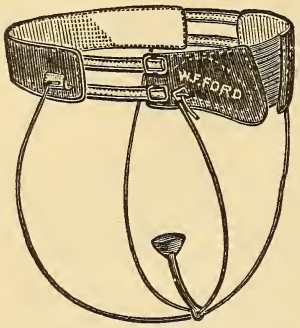


FIG. NO. 10.—M'INTOSH'S UTERINE SUPPORTER.

SPONGE TENTS.

The uses of sponge tents we mention in connection with the conditions and diseases for which we recommend them. They should be solid and smooth, and be furnished with a strong cord to aid in their removal; and should have an opening in their larger end to insert the end of the sponge holder, which it is advisable to use in the introduction of the sponge into the cervical canal. The best of the sponge tents now in use are carbolized in their manufacture; still it is well to dip them into carbolized glycerine just before we insert them.

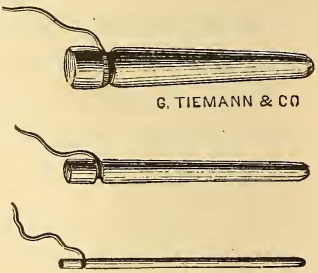


FIG. NO. 11—SPONGE TENT.

Dr. Emmet, of New York, has invented a sponge dilator, as he calls it, which is advantageous in some instances. The advantage of this dilator (see Plate IX) is that with it the sponge does not become imbedded in the tissues of the cervix as when the sponge is directly applied. Dr. Emmet* describes the instrument and its uses in the following language:

"Through a disk of hard rubber passes a brass tube, which is perforated by a number of small holes at the upper portion, and is open at each extremity. This tube is passed through the center of a sponge tent of suitable size. The tent is then covered by a thin India rubber cot or bag, and its mouth stretched over the edges of the disk. The free edge of the cot, which has been drawn over the disk, is then secured, compressed between the under side of the disk and the brass plate *A B*, on screwing up the latter sufficiently. The brass disk *A B* has attached to it on side at *B* a knob which can be grasped by a pair of forceps, the limbs of which are closed by sliding forward the canula *E*. When the knob *B* is held by the forceps, a ball-and-socket joint is formed, which will admit of any motion within the radius of a sphere. To the bulb at *C* is attached a piece of India rubber tubing, a foot or more in length, through which water is introduced for swelling up the tent, and at the end of the tube is a stop-cock. To the other side of the stop-cock a Davidson syringe may be joined, or what I have found to answer better, a thin India rubber bag, such as are used for pessaries, with tube and stop-cock. The dilator is introduced by steadying the cervix with a tenaculum in one hand; and by holding the forceps and tubing in the other the proper direction can be given to the instrument. When it has been introduced within the canal to the proper depth, a small amount of water is to be thrown in before removing the forceps. As the tube occupying the center of the sponge

* Emmet's "Principles and Practice of Gynæcology," page 32.

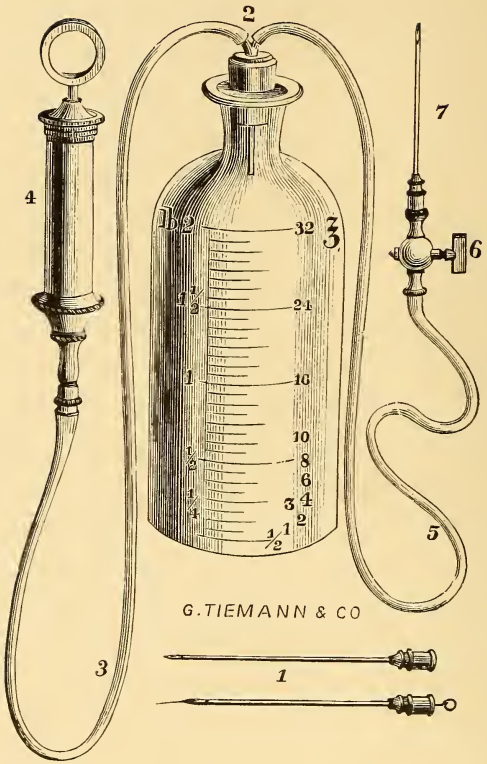
is open at its extremity and its sides perforated, the water will make its exit at the upper portion, and dilatation will extend from above downward, so that the instrument can not slip out. Enough of the sponge is dilated in a few moments for the purpose of retention, so that the forceps may then be removed by sliding back the canula. I direct the patient to lie in bed on her back, and to place on the abdomen the air bag, which has been filled with water, from which a sufficient supply to fully dilate the sponge is made to flow by occasionally compressing the bag with the hand.

"I generally leave the dilator in place for some twelve hours, unless there should exist some special reason for more rapid dilatation. The instrument is easily withdrawn by placing the patient on her back, removing the bag, and turning the stop-cock for the escape of water from the sponge. The forceps can be passed along the index finger into the vagina and attached to the instrument, when it can be withdrawn, guarding against displacing the uterus by holding the finger against the cervix.

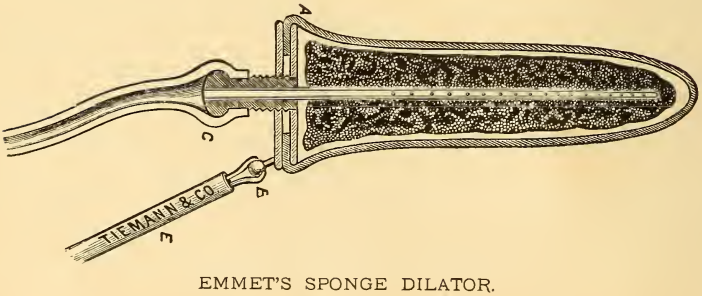
"The chief advantage of this dilator is that it greatly reduces the risk of blood poisoning, and if we could dispense with the unprotected sponge in the first instance this danger would be entirely obviated. Fortunately, when this does occur, it is seldom from the use of a single tent; and, if the precaution be taken, which I always insist upon, to wash out the canal thoroughly whenever a tent is removed, we will greatly lessen the risk. It is also a great advantage gained from the use of the dilator that the mucous membrane is not injured, and consequently we have no bleeding from the canal when it is removed.

"The disadvantages are, that we can seldom dilate to the same extent as can be done by the tent alone. The resistance offered by the uterine wall will yield to the steady pressure of the sponge, but the elasticity of the India-rubber

Plate IX.



TIEMANN & CO'S ASPIRATOR.



EMMET'S SPONGE DILATOR.

bag is persistent, and will, to some extent, counteract the force of the sponge. Consequently, we are obliged to use a cot much larger than the sponge, which will occupy an additional space, and, therefore, makes it necessary that the canal should be partially dilated before the dilator can be introduced.

"On the other hand, this dilator has the advantage that the force can not be concentrated at any one point, but must be exerted throughout, as the sponge gradually dilates. I have used the instrument several times for rapid dilation, and it answers the purpose, but, unless there should be a necessity for doing so, the more gradual process is to be recommended, as attended with less risk in surgical procedures; but the contrary is true in obstetrical practice. For rapid dilatation, however, it has no advantage over any other instrument of the kind, as at first the water escapes outside of the sponge when rapidly thrown in, and becomes the dilating power, but, as soon as the sponge has had time to expand, it absorbs the water, and the pressure then becomes uniform."

ASPIRATORS.

Aspirators are now used very extensively. They enable us to evacuate effusions into the pleura, and even in the pericardium. In gynæcological practice they are used to diagnose the nature of an ovarian cyst, and differentiate it from the cyst of the broad ligament in some cases. With it we may sometimes evacuate a pelvic abscess. The wound made by the introduction of the aspirating needle is so small that little or no irritation in the tissues is left after its use.

I copy the description of Dieulafoy's instrument, given by Dr. Jas. L. Little, of New York (see Plate X). Tiemann & Co., of New York, make another very good instrument also (see Plate IX). I have had some trouble in keeping the stopper in the jar of this instrument air-tight.

The Tiemann instrument is so simple that it needs no special description:

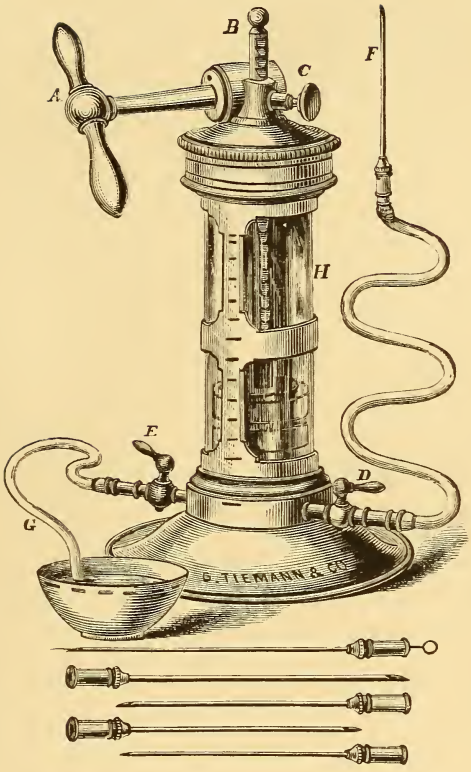
"Dieulafoy's aspirator consists of a strong glass cylinder, about seven inches in height, two inches in diameter, and of a capacity of one hundred and forty-five grammes, equal to nearly four fluid ounces. In front, upon a nickel-plated German silver casing, which envelops the cylinder in part, is a graduated scale that reads off in grammes the amount of fluid contents—the gramme here being not a measure of weight, but of capacity (each gramme being equal to the space occupied by a cubic centimeter of water at a temperature of 39.2° Fahr.). Above, the piston is raised by means of a rack and pinion motion, worked by the handle, and kept from slipping by the spring. At the bottom are two stop-cocks that may be opened or shut as needed. Upon these are fitted two strong, yet perfectly flexible, rubber tubes. Upon the one may be seen a perforated aspirator needle, while the other is dipping into a receiving bowl. In the tube which holds the needle is inserted a piece of glass tubing, near the needle extremity (not shown in the cut), that indicates whether the material to be evacuated is passing through the tube. The other tube is to allow discharge of the cylinder's contents.

"The capillary tubes, trocars, or aspirator needles are seen on Plate X. They are of various lengths, and vary greatly in their diameters, the smallest being one-third of a millimeter (the size of the ordinary hyperdermic needle), while the largest is about one and one-half millimeters, in diameter.

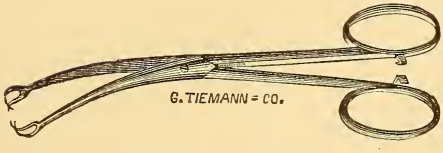
"It is well to have also two or three small canulas and trocars on hand, their handles detachable, so that when introduced, and the trocar withdrawn, they may be attached to the rubber tubing.

"To use the instrument, attach to the two taps the two pieces of rubber tubing, and to the one tube attach the needle to be used. The other tube should be placed in a

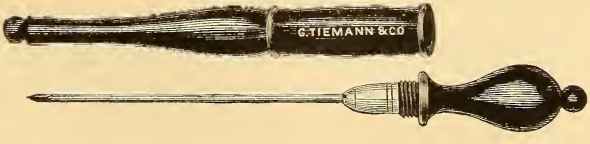
Plate X.



DIEULAFOY'S ASPIRATOR.



VULSELLUM FORCEPS.



EXPLORING TROCAR AND CASE.

basin. Having every thing in readiness, close both stop-cocks, turn the handle, thus raising the piston to its fullest extent, and creating a vacuum. Next insert your aspirator needle with a gentle rotary motion into the cavity to be aspirated, turn the stop-cock, and the fluid will be seen to pass through the glass tubing and up into the instrument. When this is filled, close the stop-cock, and open the opposite one, pull out the spring, and push the piston down. The fluid is thus driven out through the tube into the bowl or bottle ready to receive it. If there be more fluid present turn both stop-cocks, and, again raising the piston, proceed in the same manner as before.

"In using the instrument attention to the following practical points is necessary:

"1st. Before using, assure yourself that the instrument is in perfect working order; that there is neither stoppage, leakage, or difficulty in manipulating, or stop-cocks hard to turn.

"2d. The needles or trocars, which should be perfect, should be oiled before attempting their introduction.

"3d. Slow, steady, even pressure, with rotation, the needle being held between the thumb and index finger, will be found to accomplish the result with as little pain and injury to the tissues as is possible. The skin should be slightly nicked with a scalpel before inserting the needle. Local anæsthesia may be used if thought desirable.

"4th. In removing the trocar, do so slowly, aspiration being continued meanwhile, to prevent the escape into the tissues of any fluid that may be in the trocar. Bear this in mind, especially in aspirating the peritonæum.

"5th. After using the instrument each time, carefully wash it out, and its attachments, by drawing carbolized or chlorinated water several times, with the cylinder, through the tube attached to taps, forcing the same out through tube at taps, after the manner of aspiration and discharge of fluid.

"6th. The piston may be kept in good condition by occasionally unscrewing the head of the cylinder, and pouring in about half an ounce of sweet oil.

"7th. Always keep wires through the needles when not in use."

LENTIS' MODIFIED INHALER—(See Plate XI)—needs no explanation. It is convenient where we desire to use anæsthetics.

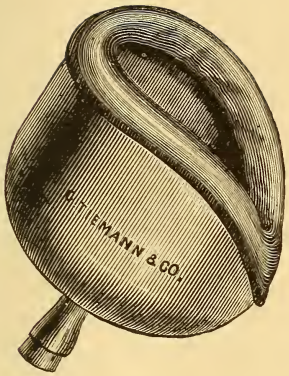
LITTLE'S ANTISEPTIC SPRAY APPARATUS—Consists of a spirit lamp placed underneath a copper boiler, as seen in Plate XI. The antiseptic or disinfectant is placed in the glass jar at the side, and the steam generated in the boiler forces the liquid in the jar up through the glass tube inserted into it by means of the vacuum produced, and a fine spray is made by the steam coming out through the horizontal tube.

ABDOMINAL SUPPORTERS.

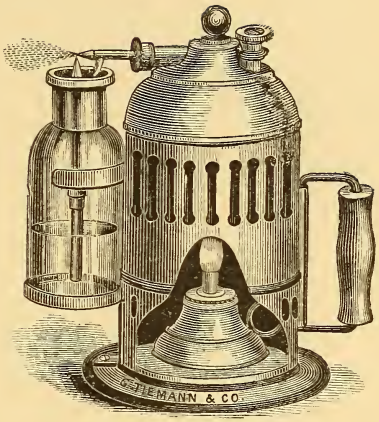
Appliances for holding up the abdominal viscera, from pressing down unduly upon the pelvic organs, are termed abdominal supporters. They have been so poorly adjusted, or have been so poorly made, in some instances, as to be designated by a contemporary as *abominable* supporters. And when improperly used, or constructed improperly, they are *abominable*. Must we condemn them *in toto* because they are capable of doing injury when improperly used? Under this ruling, I believe, every surgical, obstetrical, and gynæcological instrument might be condemned and called hard names. Fire or water may destroy life when improperly used; on the contrary, they may preserve it, when properly made use of. Shall we banish fire, water, surgical, obstetrical, and gynæcological instruments because, when improperly used, harm may result? Or shall we use them properly, and obtain the good results which follow their intelligent use?

The abdominal band, when applied to compress the ab-

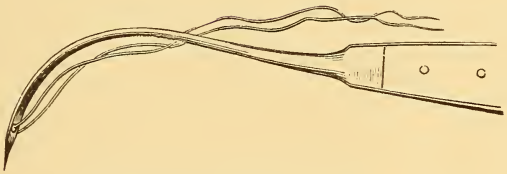
Plate XI.



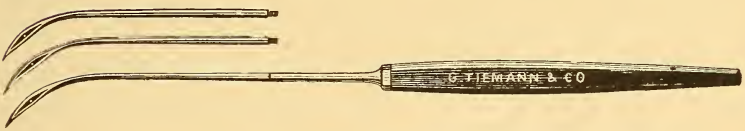
LENTE'S MODIFIED INHALER.



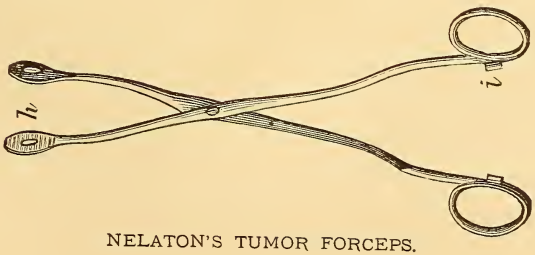
LITTLE'S ANTISEPTIC SPRAY APPARATUS.



ASHTON'S PERINEUM NEEDLE.



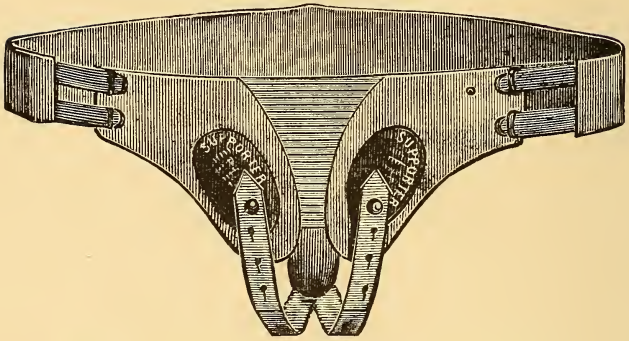
PEASLEE'S PERINEUM NEEDLES.



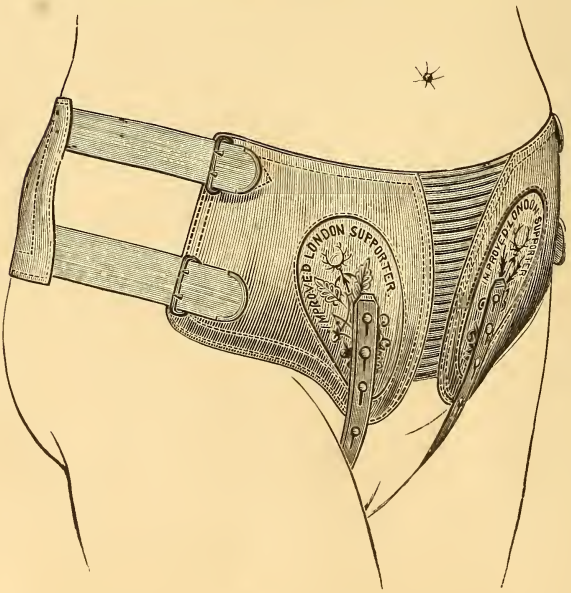
NELATON'S TUMOR FORCEPS.

Plate XII.

SILK ELASTIC ABDOMINAL SUPPORTER.



THE OLD LONDON ABDOMINAL SUPPORTER.



EATON'S IMPROVED LONDON ABDOMINAL SUPPORTER.

domen around the waist, *must* be injurious, by pressing the abdominal viscera down into or towards the pelvis. On the contrary, if applied to the lowest part of the abdomen tightly and made less tight above, it lifts and holds up the abdominal viscera, especially when the patient is erect. (In the reclining posture no abdominal support is ever required.)

Twenty and more years of practical experience in the use of *abdominal supporters* gives me stronger faith in their beneficial effect, than in any previous time of my life; and I have always been an advocate of their proper use. Their range of application is in those cases where there is tenderness, inflammation, or displacement of the pelvic organs, cystitis, metritis, ovaritis, versions, flexions, or prolapse of the uterus, all of which require that the weight of the intestines be kept from pressing down into the pelvis. This can, of course, be done by maintaining the horizontal position, but it is usually desirable that our patient take some exercise, which she can not do without injury in these complaints, unless some means are used to maintain the intestines *in situ*, or even lift them above their natural position slightly.

I am not particular about any special make of supporter; we only insist upon the principle being carried out. Sometimes extemporized bands are made by patients themselves, or their friends, which support the abdomen quite well. Duncan Bros., Chicago, have a very good supporter of this kind, which needs, however, to be improved by inserting strong, elastic straps. Ordinarily, however, among a well-to-do class, it is best to buy for them a band made by the regular instrument-maker. The band needs to be a little firm in front and back, to prevent wrinkling, and must be elastic in part that it may give somewhat, and not bind the hips, as the lower part of the band, to be of service, must come below the crest of the ilium.

The supporter which we commonly use has two elastic

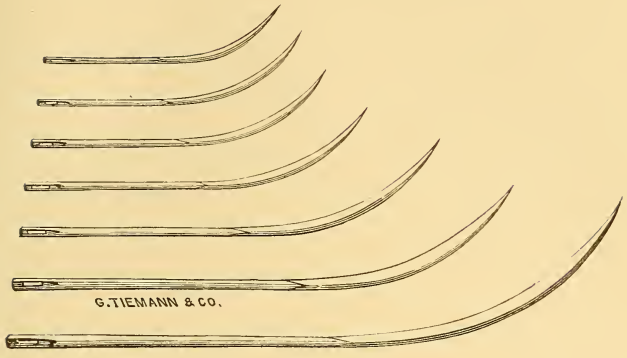
straps on the side, reaching from the front to the back piece, one of which I place below, and the other above the crest of the ilium. Leaving the upper one a little loose, I make the lower one quite tight, having the front stiffened part bent inwards, to fit the shape of the abdomen. In cases of small abdomens, we have to apply a pad underneath the band in front, so as to get a better upward pressure with the supporter. (See Plate XII.) This is a modification of the London supporter, which I have had made by the Messrs. Wocher, of this city. The London supporter (see Plate XII) is objectionable in that it is more difficult to obtain the tightness of the band at its lower part, where it is needed, the straps being too near together, and the lower one too far above the lower part of the front piece of the supporter. Sometimes, in case of pendulous abdomens, we have the entire band made of silk elastic to fit the shape of the lower abdomen, and buckled on so as to be tightest in its lowest part. (See Plate XII.) We could not get along without the use of some support for the abdominal viscera.

Fitch's supporter made with springs of steel, which are placed over the crest of the ilium and rest against two pads at the back, and in front against a stiff piece well padded, is made too small, and the steel pieces are too stiff; consequently, it has gone into disuse. It might, however, be made a useful instrument by correcting the objectionable parts of it, which I have mentioned.

The woman affected with uterine complaints is more universally relieved by the use of a properly applied abdominal supporter than by any one means within our knowledge. The physician using abdominal supporters intelligently will receive more thanks and gratitude for them than for any other service he can render, for the reason that relief is so apparent.

Objections.—Objections have been urged to their use that they do not fulfill the indications. I reply, then they were carelessly or ignorantly applied.

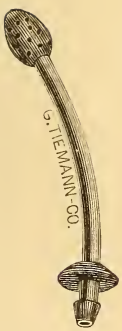
Plate XIII.



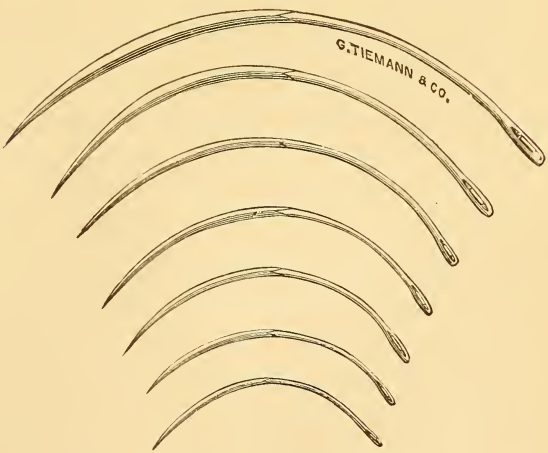
HALF CURVED SUTURE NEEDLES

BOZEMAN'S TENACULUM.

CALLENDER'S DRAINAGE CANULA.

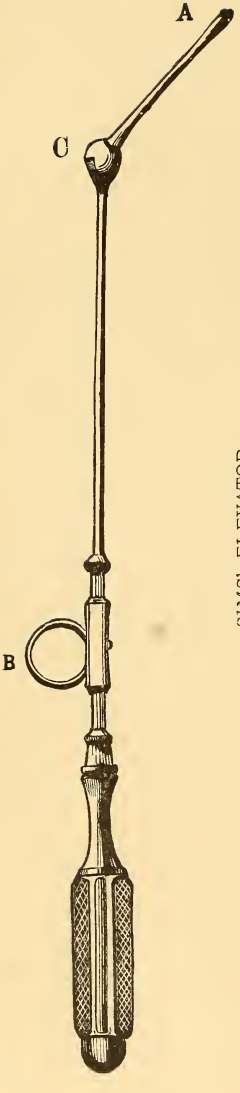


SELF-RETAINING CATHETER.

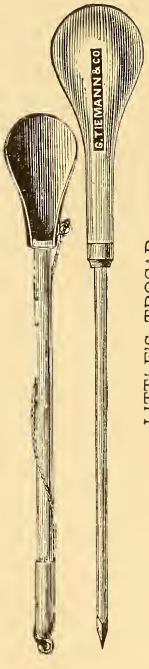


FULL CURVED SUTURE NEEDLES.

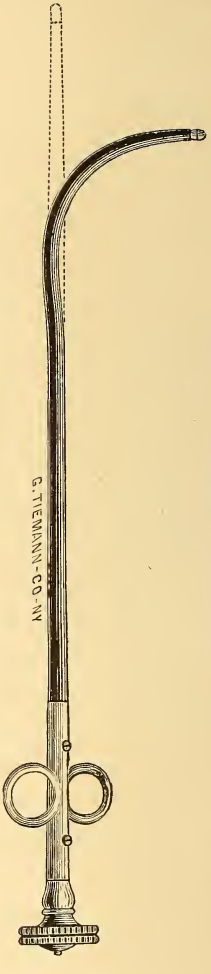
Plate XIV.



SIMS' ELEVATOR.



LITTLE'S TROCAR.



ELLIOTT'S UTERINE ELEVATOR.

It has been objected to the use of abdominal supporters, that the patient becomes accustomed to them, and after awhile can not do without them. We reply, this has not been our experience. That they have usually to be worn for several months is true, as regards chronic cases, but is not true in recent cases requiring their use.

UTERINE ELEVATORS.

Various instruments have been devised to replace flexions and versions of the womb. Sims' elevator (see Plate XIV) is a very good instrument in retro-version, but can not be readily used in retro-flexion, ante-version, or ante-flexion. Elliott's instrument (see also Plate XIV) is adapted to all displacements. By means of a screw in the handle the point of the instrument is moved from side to side, or extended in a direct line; hence making it easy of introduction; and, when introduced, we have but to turn the screw in the handle to bend the other end of the elevator in the opposite direction, and thereby correct the flexion we wish to rectify. In versions of the uterus it is equally serviceable.

ELECTRICAL BATTERIES.

There is no end to the various styles of electrical batteries. Electricity is the same in whatever form of battery we develop it from chemical decomposition. Friction batteries are out of date as therapeutic agents, and we will not describe or recommend them. The object to be obtained with the use of electricity is a tonic effect upon the nerves, and for this purpose must always be used in a mild current (an exception being made in cases of paralysis, where it may be used quite strong).

Severe treatment with electricity I think as unwise and injurious as large doses of drugs, and equally to be avoided. Immense batteries we do not think necessary, unless the

physician desires to add to the furniture in his office in this way.

In the chapter on amenorrhœa, page 38, may be found a cut of the combination battery, which I think as large as there is any need of in the treatment of the diseases of women. In chapter on sub-involution is a cut of a medium-sized battery, which is as large as the physician ordinarily requires. I prefer the Faradic or interrupted current. The automatic rheotome attached to the combination battery makes it every thing that could be desired. For family use the small instrument shown in the annexed cut is very desirable, and obviates the necessity for the physician to take his from the office.

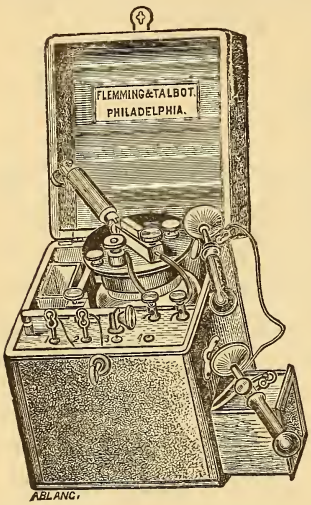


Fig. No. 12.—Faradic Battery.

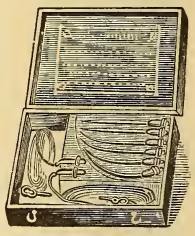


Fig. No. 13.—Case of Electrolysis Needles.

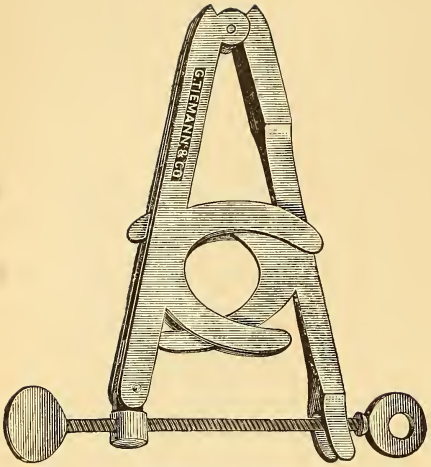
A very neat case of electrolysis needles is put up by Flemming & Talbot. It contains six needles and conducting cords.

PEDICLE CLAMPS.

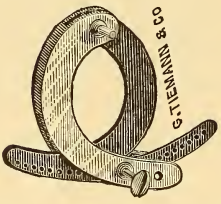
Although we do not believe in the use of pedicle clamps as a rule, we present cuts of some, that the student may become familiar with them, if he desires to put them in use. (See Plate XV; also, chapter on "Ovariotomy.")

The Spencer Wells clamp has had many friends. With it a very powerful, but quite unnecessary, pressure can be exerted upon the pedicle by means of the handles, which can afterwards be removed. For myself I prefer the Dawson clamp. (See "Ovariotomy.")

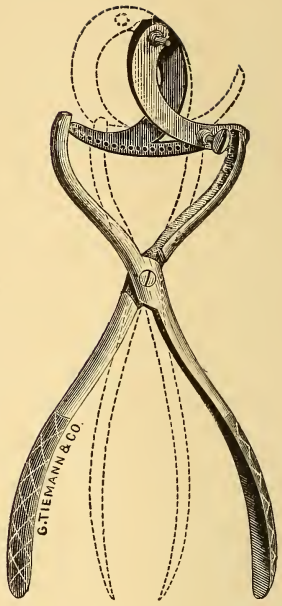
Plate XV.



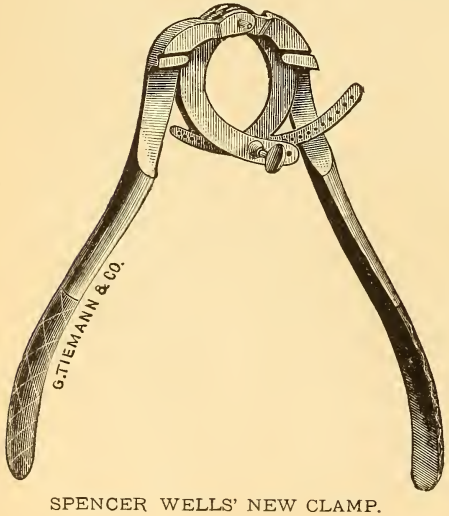
THOMAS' CLAMP.



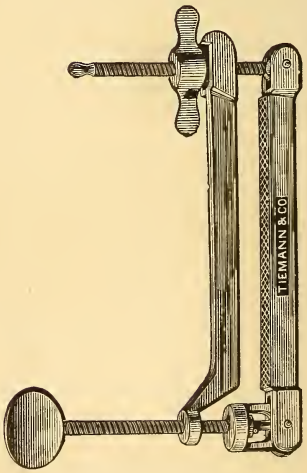
SPENCER WELLS' NEW CLAMP.
(Detached from the handles.)



SPENCER WELLS' NEW CLAMP.



SPENCER WELLS' NEW CLAMP.



SPENCER WELLS'
ORIGINAL CLAMP.

SPHYGMOGRAPHS.

The sphygmograph is an ingenious instrument with which to note the varieties of pulse, which is often of importance in making both the diagnosis and prognosis of disease.

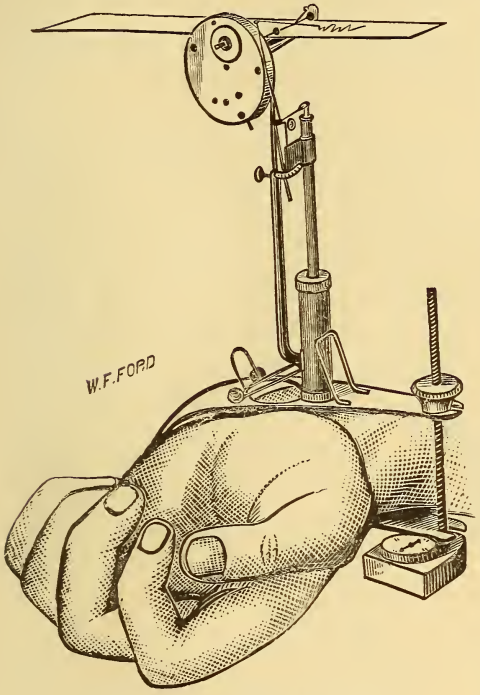


Fig. No. 14.—Sphygmograth.

The instrument is so delicately constructed that the slightest irregularity of the pulse is noted by it, and made a matter of record, as is seen in the sliding piece of smoked glass seen in the top of the cut. By means of a spring in the wheel this smoked piece of glass is propelled evenly, while an index needle traces the throbbing of the pulse with exactness. With its use we can discover an irregularity of the pulse which we could not detect by the sense of feeling. This may give us important information regarding the heart's action, as well as the condition of the blood vessels, and in some instances may throw light upon the diagnosis of nervous diseases also.

CHAPTER XIV.

INDURATION AND HYPERTROPHY OF THE CERVIX UTERI—VAGINISMUS AND DYSPAREUNIA.

INDURATION of the cervix signifies a hardening of the neck of the uterus, giving it the feel of gristle, and sometimes much like bone, while hypertrophy of the cervix signifies an enlargement or elongation. Hypertrophy may affect the whole cervix, or be confined to one lip of the os. It may consist of soft, spongy tissue, or be associated with induration; hence we may have hypertrophy and induration in the same case.

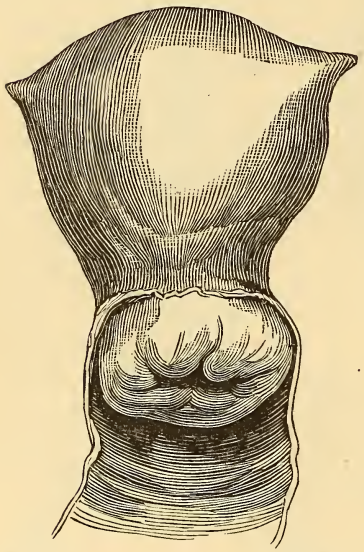


FIG. NO. 15.—SUB-INVOLUTION AND HYPERTROPHY OF THE CERVIX.

Induration exists in all stages, from the very slight, confined to even a part of one lip, or affecting the whole of one lip or the whole cervix.

Hypertrophy may exist in small or *great* degree. It may have the effect of causing an enlargement of the cervix laterally, only (see Fig. 15) giving greatly increased thickness to the walls of the cervix, and generally accompanied with a corresponding enlargement of the os uteri. In other cases the hypertrophy produces an elongation of the cervix, without any considerable increase in its diameter. On introducing the uterine sound, in some cases we find the cervical and uterine cavity to measure from four to six inches. In women who have borne children we

should have a measurement of at least four inches in the cervix and uterus, or we could *not* denominate the case one of hypertrophy, however much the cervix projected downwards, even to the extent of appearing externally. It would be a case of procidentia and not hypertrophy, unless the measurement of the uterine canal showed considerable increase above what is normal; and, further, simply an increase in the length of the uterine cavity, with prolapse, will not indicate hypertrophy of the cervix positively, for the gravid womb and a condition of sub-involution would present this condition of elongation. (Of course, the reader will understand the sound is never to be introduced if there is any probability of pregnancy.) We must be sure that the elongation is due to increase of length in the cervix. The cervix uteri is firm in structure, and elongation must be due to development of tissue in this part, or the case is not hypertrophy of the cervix.

It is something very common that medical men have strange ideas, not to say hallucinations and hobbies, on some particular subject, while very correct on all others. I suppose I, too, have mine, but as we can not see our own, to some one else must be assigned the duty of pointing mine out, while I feel it my duty to call attention to a peculiar idea advanced in Prof. Emmet's excellent work,* pages 482-3. He says:

"Among sterile and unmarried women cases occasionally come under observation which are supposed to be instances of elongation of the cervix, when the disease is not in the cervix proper; and, instead of there being an enlargement of this portion, actual atrophy is the rule. Some change in the character of the tissues forming the supra-vaginal portion of the uterus takes place, of the precise character of which I must confess my ignorance. It is to be hoped that the pathologist will be able to throw sufficient light upon the

* "Prin. and Prac. Gynæcology."

subject to indicate the proper mode of treatment. In such a case the uterine body becomes elongated when the woman stands, and while the fundus stands stationary, the tissues below stretch out, as if formed of soft putty, becoming elongated by their own weight.

"In this prolapse the uterine neck is pushed forward in the vagina, and frequently beyond the outlet, and the supra-vaginal portion of the uterus appears with a covering of the vagina presenting the appearance of an elongated cervix. The probe may be passed in such a case five or six inches, or a blunt sound may be introduced to the fundus, when, if the cervix be drawn with a tenaculum along the staff to the handle, the depth of the canal is shown to be eight or nine inches. If we next place the patient on the knees and elbows, for examination, the change brought about will be a remarkable one. The whole of this elongation will disappear, and the uterus will be found to be but two and one-half inches in depth. In this position the uterus seems to shut up, falling together, as would an old worn-out spy-glass, if held upright."

Now, I have never seen a case like the one above described, nor have I ever before heard or read of such a condition in the married, unmarried, barren, fruitful, or otherwise. The affection may be peculiar to New York; I can not say. Whenever I have drawn down the uterus, I have found that its interior measured about the same as before. I would as soon expect to elongate a finger by making traction upon it, as the uterus by drawing down the cervix.

Dr. Emmet asserts that the fundus remains stationary in these cases, and that traction upon the cervix with a tenaculum, or even its own weight, stretches the tissues of the uterus from two and a half to eight or nine inches. This is a pretty good showing for the strength of the tenaculum, the firmness of the attachment of the fundus, or the elasticity of the uterine tissues.

My opinion is, that such a condition of the uterine tissue as this will not often be met with, and would show—well, as Dr. Emmet does not attempt to explain, I will not. As I freely accord to him the honor of being the discoverer of this condition, I will leave to him to explain what it indicates. The student (especially in New York), will, however, be on his guard, and not amputate an apparently elongated cervix till he has taken care to ascertain if it be one of the spy-glass variety described by Prof. Emmet, as just quoted. Ordinarily, the student will find that the uterus is firm, and *not elastic;* that when he draws down the cervix, the fundus comes along also, even if pushed up with the sound, while traction on the cervix is being made.

Etiology and Pathology.

Inflammation is an important agent in the production of hypertrophy or induration of the cervix, in most cases, if it is not, in every case, the prime cause.

The causes of the inflammation are various. They may be cold, excessive coitus, masturbation, or traumatic injury in confinement, or otherwise. The lateral hypertrophy and induration I have found most common in women who have borne children—generally, though not always, caused from lacerations of the cervix in confinement—while the longitudinal hypertrophy is mainly found in the barren or unmarried, this condition being a probable cause of barrenness, some cases being congenital.

The process of development of hypertrophy is this: Owing to some of the causes enumerated, there is an excessive activity in the circulation, for a time, in these parts, followed by congestion or stagnation of blood. This causes the throwing out of serous effusion into the cellular tissue beneath the mucous membrane. With this serous effusion is mingled some amount of plastic material. This effusion distends the tissues, and causes a soft, semi-fluctuating feel to the touch

for a time. After a period, varying from two months to several years, this effusion organizes into non-elastic, fibrous tissue in some cases of induration. This may remain, and produce no inconvenience to the patient. In other cases it serves as a nucleus for the development of fibrous tumors or cancerous disease. In other instances non-striated muscular tissue is formed, causing hypertrophy without induration. In still other cases continuous irritation keeps up continuous effusion, and there is a puffy, though hypertrophied, condition.

Disorders of menstruation are frequently connected with hypertrophy and induration.

Differential Diagnosis.

The diseases with which hypertrophy and induration of the cervix are most likely to be confounded are acute inflammation of the uterus, a fibrous uterine polypus, which has been expelled into the vagina, having so short a pedicle as to be almost stationary and as large as a hen's egg, cauliflower excrescence of the cervix, cancer of this part, and the condition of pregnancy.

From acute inflammation it is to be diagnosed by absence of heat, tenderness and fever, and from the history of the case, showing the difficulty to be chronic; from the fibrous uterine polypus, by discovering the os uteri at the depending position of the enlargement which could not be found in the fibrous polypus; and by passing the finger by the side of the polypus we would feel its neck entering, or attached to, the side of the os uteri. In cauliflower excrescence, the feel is extremely uneven, the unevenness being like folds, with the creases between them branching irregularly, some of the folds being ear-shaped, and bleeding profusely on slight touch. From pregnancy, by the history of the case, and the accompanying symptoms peculiar to that state (though absence of menstruation coming on gradually might complicate a case of induration or hypertrophy); it is more usual, however, that

the flow is very profuse. Exceptional cases do occur where it is scanty, and in some it is entirely absent.

Again, we must take into account the length of time these symptoms have been present. If suppression has existed for several months, the uterus could be felt in the abdomen, if the case was one of pregnancy. If it could not be felt there, and the os was open, we would be justified in ruling pregnancy out of the question. Besides, when suppression does come on, in these cases of induration, it is gradual, and not sudden, as is usual in pregnancy.

In cancer of the cervix we have the induration and enlargement, and also the sharp lancinating pains, mostly or entirely felt at night, and the cancerous cachexia is present, the two latter symptoms not being present in ordinary hypertrophy or induration. In cancerous ulceration of the cervix the odor of the discharge is distinctive, but can not be described. The physician of experience will, however, readily recognize it. It is to be hoped that every student will have the privilege of seeing a case in hospital before engaging in private practice. He will then readily recognize the odor.

Treatment.

The remedies from which we receive the most benefit are *Ars. iodid.*, *Phytolac. dec.*, *Nux*, *Secale*, or *Merc. cor.*

I can not advise reliance upon internal medication alone in this disease, though it is of much value in putting the general glandular system in a healthy condition, and promoting secretion and excretion, digestion, and assimilation, which is of much importance. By conjoining local treatment, much may be accomplished. I am well aware that some homœopathists claim that local treatment in all diseases is quite unnecessary, and often injurious. (To the latter assertion I subscribe when it is improperly used, or is of too severe a character, but to the former I can not agree.)

Quite a prominent author, who maintains that local treat-

ment of the uterus is a snare and delusion, was asked, in a medical convention, in my hearing, if he had ever treated a case of endo-metritis. His reply was, *No*. Now, I can but suppose that, this being the case, he either had had little experience in diseases of women or had not been very thorough in diagnosis. Still this gentleman condemns strongly those who use local treatment. I must conclude that he does so from theoretical reasons, and not from his own practice and experience. However this may be, I am disposed to write my own opinion, founded upon my own experience and that of others.

I will say that, in my hands, the local application of *Tr. of Iodine or a Solution of Iodine*, in various degrees of strength (five to fifteen grains to the ounce), has accomplished much good in softening the indurated cervix, and in causing diminution of size in cases of hypertrophy. I apply the remedy, with a soft brush, to the exterior of the cervix, taking care not to have too much liquid upon the brush, so that it might flow off on to the mucous membrane of the vagina. I apply the same remedy to the interior of the cervix with a director something like a uterine sound, only not enlarged at the extremity, and wrapped around with raw cotton, dipping this into the fluid, and passing it into the cervix, where it should remain for a minute or two. After making these applications through the speculum, which should be repeated only once in three or four days, I generally introduce a wad of cotton (to which is attached a twine string), firmly against the os. This serves to protect the vagina, and retains any superabundant iodine in contact with the cervix. I direct the patient to remove the cotton, in about twelve hours, by means of the string. The patient should lie in a recumbent posture for a half hour or so after the treatment.

This plan, in connection with internal remedies, will soften the induration and very often greatly reduce the size of the cer-

vix. Much depends upon the length of time the hypertrophy or induration has existed as to the length of time required for relief. I would not promise the patient relief in any specified time, as a period named shorter than the results finally justify will discourage the patient, while a time long remote would discourage her in the outset.

I must acknowledge that some cases are not amenable to medical treatment. They are usually those of many years' standing, or of congenital origin. In these intractable cases we may be justified in resorting to surgical treatment. This consists in amputating the superfluous tissue. It may be performed with the scissors, or the ecraseur, with but little trouble and with little fear of hemorrhage. Styptics should, of course, always be at hand to arrest any free flow of blood that might occur. The important thing after the operation is to maintain the size of the os uteri, and prevent its closing. Taking four stitches in the manner shown in Figs. 16, 17, is an efficient means to accomplish this object.

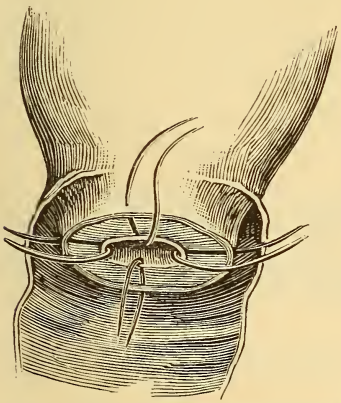


FIG. NO. 16.—STITCHES INSERTED AFTER AMPUTATION.

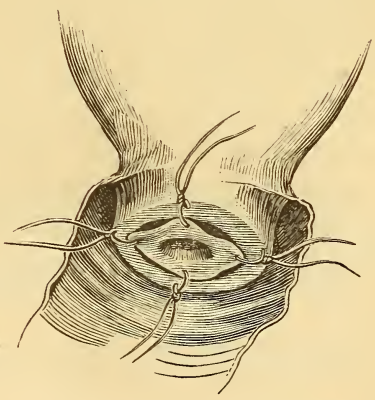


FIG. NO. 17.—SUTURES TIGHTENED AFTER AMPUTATION OF CERVIX UTERI.

These sutures should be of silver wire, and should be inserted as shown, so as to draw the mucous membrane of the vagina over the stump, and also serve to draw out to some extent the mucous membrane of the cervical canal, and

prevent a cicatrix, which might close the os. This plan, also, has the advantage of causing healing by first intention of a large part, if not all, of the stump, which saves much time from that required for healing by granulation. The sutures may be cut and removed about the seventh day. A wad of cotton smeared with vaseline applied twice a day against the os is a desirable dressing, both before and after the sutures are removed. It is best to do this without the aid of the speculum, as its introduction will, in a measure, bruise the stump, and prevent healing. The sutures may best be inserted and removed with the aid of Sims' speculum improved by Dawson. (See Plate III in chapter on Instruments.)

Amputation of the cervix uteri with the ecraseur does not positively demand the use of any speculum. The patient lying upon the side or back with the thighs drawn up is given an anæsthetic. We then pass the loop of the ecraseur chain into the vagina, directed by two fingers of the left hand; adjust it around the cervix, being careful not to press it up so high as to amputate above the vaginal juncture; have an assistant tighten the chain and screw it down as we direct, till it is firm upon the cervix, when we may remove our fingers from the vagina, and complete the operation.

We next insert the speculum, seize the stump with a strong tenaculum, draw it down and insert the sutures as rapidly as possible, withdraw the speculum, release the stump, insert a wad of cotton smeared with vaseline, and the operation is completed.

Amputation of Cervix Uteri with Scissors.—Let the patient be given an anæsthetic, and then placed upon the operating table on her back or side, with the thighs well drawn up. We now draw down the cervix with the vulsellum forceps exterior to the body. Have an assistant hook a strong tenaculum into the cervix above where we intend to amputate to prevent the stump from retracting, then with

strong scissors sever the tissues. We now apply *Ferri Per-Sulph.* to the stump and stitch the vaginal membrane over it, as previously directed, after amputating with the ecraseur.

To remove the sutures the same plan may be adopted, or we may insert the scissors into the vagina with the right hand, directed by two fingers of the left in the vagina, when we may cut them seriatim, and insert a pair of needles or polypus forceps, and extract one at a time till all are removed; or we may remove them with Cutler's suture forceps and cutter.

Various Other Methods of Treatment.—Professor Emmet urges a liability to return, as an argument against amputation, and adopts the plan of taking out a wedge-shaped piece of tissue, the apex of which is upwards, and the base to include most of each lip of the cervix. His operation is much more difficult, and offers more danger of closure of the os, and I can not see that it presents any advantages over amputation.

The use of injections of diluted *Solu. Iodine* into the substance of the tissues of the cervix has been recommended as efficacious in promoting absorption and softening of the induration—for this purpose a syringe, similar to the ordinary hypodermic, is used, larger in size, with tubes about three inches long. (See Fig. 18.)

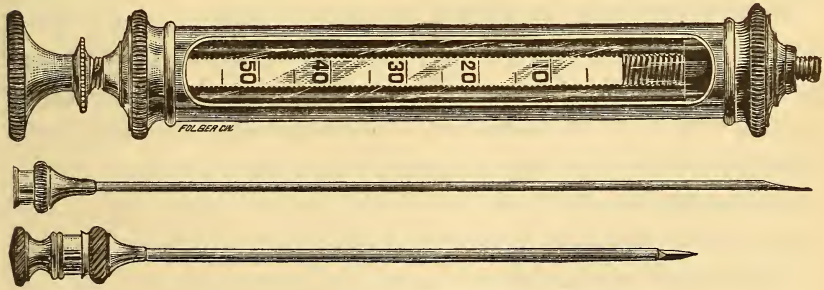


Fig. No. 18.—Syringe for Injecting Fibroids.

In my experience this treatment is only applicable to cases which are extremely free from sensibility, as otherwise it produces great pain. In cases which have withstood the

use of remedies and local treatment, the injections may be made at intervals of three days (not using them, however, very near to the menstrual period), making about three punctures and injections at each treatment, throwing in about twenty drops into each puncture, using the following prescriptions:

℞.—Iodine Res., grs. x.
Kali Iod., grs. xxx.
Kali Brom., grs. xxx.
Aqua, ℥ i, ♏.

Dr. John M. Bennett,* of Liverpool, England, I believe was the first to recommend and use this treatment, which he highly commends. He advises its use also in cases of chronic cervicitis, which would indicate that he would not restrict its use as much as has been, in my experience, advisable. The combination of the *Kali iod.* renders the *Iodine* soluble in water, and dispenses with alcohol, and the bromide tends to prevent as much pain as would otherwise result. After this treatment the patient should lie perfectly quiet for three or four hours, and if possible longer.

Vaginismus—Dyspareunia.

Vaginismus, as a distinct disease or difficulty, was first recognized by Dr. Sims in 1857. Dr. Robert Barnes, of London, has seen fit to coin a new name for this condition, which is dyspareunia. This term of Dr. Barnes truly enough signifies painful union in copulation, but is objectionable in that painful copulation may be due to inflammation and tenderness of the uterus as well as the vagina, and may exist independently of any vaginal irritation or spasm; I therefore prefer to adhere to the term vaginismus, generally understood to mean a super-sensitive condition of the whole or a part of the vagina, accompanied with spasmodic closure from very slight contact, even with the finger, rendering copulation either extremely

*Dublin Jour. Med. Science.

painful or impossible, causing much distress to body and mind, and sometimes sadly disturbing the peace of families—standing as a barrier against the completion of conjugal duties, including the rearing of offspring, and making life a burden instead of a blessing.

Though not immediately dangerous to life, this condition tends greatly to shorten it by the depression of spirits, and consequent derangement of the digestive and assimilative functions.

It is most common in women recently married, and, I may add, those who have married at an advanced age, being very unusual among those who have once become mothers. Hence the difficulty is one of very great embarrassment as well as pain and annoyance. The patient sometimes imagines (when recently married) that this state of affairs is common to all women, and she tries to endure it. The conjugal relation is irksome and loathsome to her, and she becomes fretful, sullen, and despondent. She communicates to no one the cause of her depression and sorrow, and her husband is suspicioned by her friends of being unkind to her. The husband often is unaware of the severity of the suffering endured by the wife, and is annoyed, if not disgusted, with her fretfulness and depression, as well as want of pleasure in his company, and accuses her of cold-hearted indifference. So on it goes, from bad to worse, till a separation and disgrace follow, as a more desirable state than this just described.

All this trouble and sorrow might be avoided if the physician would suggest to young men about to marry that they might have some trouble of this kind, and bid them to be cheerful, under the assurance that it could be remedied, and was excellent evidence of the chastity and purity of the wife, and bidding them be very gentle and moderate, seeking medical aid if things did not soon right themselves.

Dyspareunia, or painful connection, may be also due to

inflammation of the uterus, or ovaries, or displacements of these organs, inflammation of the vagina, disproportionate size of the male organ, want of sexual passion, cystitis, etc.

Symptoms.

Usually the physician will be consulted by the husband of the patient, who will state that the attempt at copulation produces in his wife extreme pain, or that it is impossible to perform the act at all, owing, as he thinks, to some malformation of the wife's genitalia.

If we see the patient at once, and attempt to make an examination of the parts, we find a cringing on the part of the patient as soon as the finger is inserted between the labia, in some instances; and, upon attempting to pass the finger into the vagina, we feel it to be spasmodically closed. If, by using some force, we succeed in inserting the finger, it is grasped by the sphincter vaginæ, and held very firmly. We will note, usually, an absence of normal moisture, and the finger should be smeared with some oleaginous substance before making an attempt at an examination.

Upon placing the patient under the influence of an anæsthetic, this rigidity is found to relax, and we can proceed to examine the position and condition of the uterus. The sound will determine any flexion which may exist, and there is no call for the introduction of a speculum in these cases. In attempting to make a digital examination we may sometimes find it impossible, even with the aid of the anæsthetic, and we feel the hymen, as a firm, smooth obstruction, quite the contrary from the drawn together feel of the spasmodic contraction. This is, of course, a case of thickening of the hymen, or an imperforate hymen (in case we can find no opening at all), and does not come under the head of vaginismus.

Etiology.

The cause of vaginismus is sometimes in the general supersensitive condition of the nervous system, called general "hyperæsthesia," and may result from a local hyperæsthesia of these parts. This local hyperæsthesia may be due to the inflammation of the vagina, vulva, meatus urinarius, or urethra, fissures, or hemorrhoids, moderate cellulitis, flexions or versions of the uterus, irritating discharges from the uterus, great size of the male organ, brutality and violence of the husband in the attempt at sexual congress, etc., etc.

These causes may also develop at a period somewhat remote from the marriage day, owing to excessive coitus, causing vaginitis, or owing to the development of some of the enumerated causes, at any time.

Some authors name hysteria as a cause of vaginismus; but, to my mind, in this theory the effect is mistaken for the cause.

Educated women are much more frequent sufferers from vaginismus than the uneducated. This is doubtless due to the greater exhaustion of the nervous system, and consequent impairment of glandular and muscular strength. With most of these women the animal nature is stunted from want of physical exercise, and exhausted by keeping late hours, and from hard study, and loss of sleep.

The mental determination to suppress every sexual emotion causes, in time, a loss of virility, not complete, it is true, in many instances, but very generally a serious impairment. In these cases contemplation of the sexual act is repulsive; there is an absence of secretion naturally thrown out by the sebaceous follicles, in the labia and nymphæ, while in the embrace of her husband, and, consequently, there is dryness of the parts, instead of moisture. This absence of moisture, with the little or no sexual passion felt, are important agents

in causing pain and spasmodic closure of the vagina when sexual congress is attempted,—all having the foundation cause in the atony and atrophy of the female genitalia, induced by the exhaustion of the entire system from mental labor.

Neftel,* of France, was the first to suggest that moderate lead poisoning, from using cosmetics containing lead, may occasionally produce vaginismus; and I am quite sure he is right. I have, in several instances, observed this condition apparently produced by cosmetics containing lead. In other cases it produces paraplegia or neuralgia.

Treatment.

The first thing in the treatment is to ascertain what there is in the particular case in hand which causes the trouble. Perhaps the best prescription which can be made for cases ordinarily, if we must prescribe before making a physical examination, is to give, according to the homœopathic indications, either *Ignatia*, *Nux*, *Aconite*, *Bell.*, or *Ars.*, internally, with *Belladonna Ointment*, diluted one-half, passed in small quantity between the labia minora and up into the vagina, by the patient herself, twice a day, using very warm water vaginal injections, in large quantity, at least once a day, taking warm sitz baths at night, before retiring, etc. Should this treatment fail of giving relief in a week or two, we should insist upon a physical examination.

For this purpose we may have our assistant, or the husband, administer some *Ether* compound, or *Ether* alone. We should then proceed to ascertain at once if there is any displacement of the uterus, and if so, proceed to replace it. If the uterus is inflamed, this condition will be indicated by heat and swelling, and we can adopt suitable treatment for this condition subsequently.

We should also, at this time, examine for fissures of the anus or vagina, and for hemorrhoids, and also as to the condi-

* *L' Union Medicale*, 1869, No. 19.

tion of the urethra and its meatus externus. If any thing abnormal can be discovered in these parts, of course, the indication is clear to treat these conditions till cured, when, it is most probable, the vaginismus will be relieved as well. (Copulation while the patient is under the influence of an anæsthetic has been practiced, in this country, to induce conception, that parturition might cure the difficulty.) Dr. Packard * reports a case where conception occurred, although the penis never entered the vagina. It is to be expected that the delivery of a child will effectually cure the vaginismus; hence, it is always desirable, in these cases, that conception should take place.

Some gynæcologists incise the vagina in several places, cutting deep enough to sever some of the fibers of the constrictor muscle, and then insert a dilator, well oiled, retaining it till the incisions are healed. This operation has most frequently been performed by Dr. Sims, who has also invented the plan of gradual dilatation with glass or hard rubber cylindrical dilators of various sizes (see Plate VI), commencing with the smaller, and gradually using larger and larger ones from day to day. This latter plan is very generally approved, and has been an efficient means in my hands when conjoined with the use of diluted belladonna ointment or vaseline, to smear the dilators before they were introduced.

As a rule, however, we have no need to use even as severe means as the vaginal dilators. Warm vaginal injections and the occasional application of *Bell. Ointment* and *Vaseline*, equal parts, with the finger, either by the physician or patient herself, conjoined with indicated remedies for this and other symptoms in the case, together with attention to diet, hygiene, food, mental quiet, and a cessation of attempts at copulation, are usually successful. When this plan of treatment fails it is time enough to use the dilators or make incisions.

* *Amer. Jour. Obs.*, Vol. II, p. 348.

It will be judged by the thoughtful student that efforts at connection would prove injurious and tend to prevent recovery. This is the case, and it is better to forbid every effort at sexual congress till the patient is thought to be recovered.

Indications for Remedies.

Arnica is indicated where the vaginismus has resulted after copulation, or injury of any kind.

Aconite is indicated where there is present vaginismus, with heat and tenderness in the vagina, with a wiry pulse, aching in the limbs, fever, etc.

Bell., where there is drowsiness, with bearing down pain; pain in the small of the back, a flushed face, etc.

Ignatia, in the case characterized by weakness, nervousness, insomnolence, etc.

Hyosc. is indicated if there is a tendency to hysteria, frequent weeping, immodesty, etc.

CHAPTER XV.

ULCERATION OF THE OS UTERI.

I WRITE a chapter on ulceration of the os uteri, not that I expect any student will soon see a case, unless it be one of a specific character, but to express the opinion that true ulceration is very rare in this locality. From the frequency with which we hear physicians speak of ulcerations of the womb one would suppose the disease was one that the gynæcologist would see daily; but this is not the case; on the contrary, they are seldom seen even as small pimples, tending to ulcerate. If we use the term ulcer, as it is applied to other tissues, parts, or organs of the body, I may say we seldom see it, except in syphilis or the phagedenic or cancerous ulcerations, which are not intended when we speak of ulceration in general terms, and are always designated specifically as such, when present.

The ulceration spoken of by physicians so often (see chapter on Cervicitis), is simply a sub-acute inflammation of the vaginal mucous membrane, covering the cervix uteri, the epithelial layer being absent (which will usually be the case after one application of caustic, and this is the almost universal treatment used by the allopathists, whether they see fit to diagnose the case ulceration, inflammation, induration, hypertrophy, chronic endo-metritis, or endo-cervicitis). Mucopurulent matter is sometimes thrown off from this inflamed surface of the cervix uteri, but it is not ulcerated as the term is generally understood. In these cases there is no depressed center, there is no disposition to slough; on the contrary, this inflamed surface is usually more elevated than

the adjacent mucous membrane. The term ulceration applied to this condition I consider a misnomer.

When the inflammation is of a rather high grade to be termed chronic sub-acute, almost coming up to an acute inflammation, we sometimes have small pimples which are exceedingly red, with a base considerably inflamed. These pimples seldom attain to a size larger than that of two or three pin heads, and usually pass away without ulcerating. Occasionally they have a little matter in them, which is discharged; but even then the disorder is so slight, as regards the ulceration, as to be unworthy the name. I have never seen them fail to heal, in a short time, under the mildest treatment. Under a severe caustic treatment the healing process might be indefinitely postponed if it was used with any degree of frequency.

The irritable ulcer mentioned by Professor Ludlam, that shows no disposition to heal, but rather increases in depth and size, I think will be found on investigation to be specific in its character, or the result of direct violence, as incisions, wearing a hard pessary for a long time, or a laceration in confinement in *broken down scrofulous subjects*, and will seldom be met with. Still, as we will sometimes see them, we may well pay some attention to their consideration.

The class resulting from laceration of the os in confinement is more numerous than is generally imagined, from the fact that they many times exist without being discovered, owing to careless examination or a failure to comprehend their nature and appearance.

The ulcers resulting from unhealed lacerations of the os are in appearance deep fissures, and generally double, *i. e.* one situated upon either side of the neck, the outer margins of which we find covered with mucous membrane, and somewhat increased in color from the natural tint; but on separating these false lips as it were, we discover pus in the bottom of the fissure, and, on wiping it away, we see the raw,

ulcerated condition of the bottom of the fissure, which, by the way, is, of course, upwards towards the fundus of the organ. These fissures or ulcers may exist singly, either from the fact of one of them having healed, or from the laceration having occurred only at one point.

The pathological condition recognized by some authors as ulceration is really one of sub-acute inflammation. Notice the description given by Prof. Byford.* He says:

"After the inflammation has lasted for a time, if its intensity is increasing, the epithelium gives way, more or less completely. This epithelial denudation is the simplest and most common form of ulceration met with in practice. Of course, in this form of ulceration the red portion is not depressed; it retains its level with the adjoining surface, and, consequently, the term ulceration is not considered applicable by some writers. After the epithelium is lost for some time, there is a gradual increase in the size of the papillary structure of the membrane, covering the neck of the uterus, and if the membrane is now examined, instead of the smooth redness there is something of a velvety or plushy appearance. The intensely red surface is covered by, or, rather, seems to be formed of, an infinite number of extremely minute projections so closely opposed that there is hardly any space between them. The papillary projections do not seem larger than the minute silk fibers of velvet, as short and as thickly set. This surface is almost always covered with mucus and pus in different proportions of admixture. There is always pus, however, when this complete absence of the epithelium is observed. Still the evenness of the mucous surface is not disturbed. *There is no excavation at least.* If there is any change in this respect, the red patch is slightly elevated above the surrounding surface. This kind of surface is always seen upon a greatly enlarged cervix, which is also very much indurated. It is very obstinate, but will usually

* "Medical and Surgical Treatment of Women," pp. 185–7.

yield to sufficiently energetic and long continued treatment. *The boldness of the use of caustics necessary to the cure of such cases as these requires strong nerves to institute and thoroughly execute.*" (The italics are my own.)

It will be noticed that Dr. Byford states that "this is the *simplest* and *most common* form of ulceration met with in practice." And, regarding treatment, says: "The boldness of the use of *caustics necessary to the cure of such cases requires strong nerves to institute and execute*," but says, "the disease is very *obstinate*." Is it any wonder?

The application of caustics to the healthy os uteri will cause the exfoliation of the epithelial layer of mucous membrane, as described, with all the accompanying symptoms mentioned, which really are but the efforts of nature to restore the loss of tissue produced by the inflammation either with or without the caustics. It is one of the mysteries of medicine that intelligent gentlemen should have applied caustic applications heroically, perseveringly, and eternally, where the success was so problematical, as they acknowledge, and where reason and philosophy seem to be ignored. Especially is it strange among those who claim to be so particularly scientific, as do the old school. It is on a par with the universal use of blood-letting practiced by this school of medicine thirty or forty years since, which has fallen entirely into disuse; and it is to be hoped that very soon caustic applications to the os uteri may be as seldom used as is blood-letting at the present day.

In these remarks I intend no disrespect to Prof. Byford; on the contrary, I selected a quotation from him because I thought he gave one of the best descriptions of the appearance of the os in these cases to be found in any work, and as I know the treatment recommended by him is a true statement of the actual practice of his school to-day. I cheerfully acknowledge the obligation I am under to him for instruction twenty years since, and I hope I shall always remember the respect

I owe to him and other old school physicians who did so much for me in my student days, and also in the first years of my practice. If I now differ with them, it is only reluctantly, after having found by experience that we have in homœopathy a law for the selection of remedies in the treatment of disease, and that the treatment of disease with remedies selected by this law is much more satisfactory than by the old school methods.

This description of ulceration by Prof. Byford is probably as good a statement of the condition of the os in cases so frequently called ulceration as can be found or written. Still, I see no good reason to apply the term ulceration, as it certainly deceives patients and friends in regard to the true nature of the difficulty, and gives great distress to some sensitive ladies, amounting to almost an abhorrence of life and detestation of themselves. Generally some leucorrhœa is present in these cases, and the patient imagines that the interior of her vagina must be perfectly horrid, if it is so ulcerated as to cause such a discharge. It is natural that she should feel much discouraged and depressed in mind—the very condition we wish to avoid, if possible. But, on the contrary, with the explanation of the physician that the difficulty is chronic inflammation of the neck of the womb, and that it looks somewhat red and swollen, and we explain that the discharge is the result of this inflammation, it causes much less alarm, and hopefulness takes the place of fear and despondency.

There is very generally a tendency to despondency in all forms of uterine ailments, and to avoid this should be a constant aim of the physician.

Diagnosis.

Here we need the aid of the speculum—in fact, without it no diagnosis could so well be made. The digital examination would not reveal any considerable heat or tenderness

ordinarily, unless hard pressure was made (which would produce some pain in case of the fissured ulceration of laceration before mentioned, where the lacerations had not healed), or in case the ulceration had resulted from scarifications or single incision, where we would have the smaller fissure. The chancre does not differ, when seated in this locality, from its appearance when situated on other mucous surfaces. For *differential diagnosis* regarding cancerous ulceration, see "Cancer of the Uterus."

Occasionally we may find a true ulcer of the os, excavated, discharging pus, the margin blanched or white, the center red, and showing small granulations after we wipe away the pus. I will suggest that we have always at hand a dossil of lint or cotton or soft sponge, and a pair of long dressing forceps, with which to wipe away any secretions which may cover the os; otherwise we may be sadly misled in diagnosis.

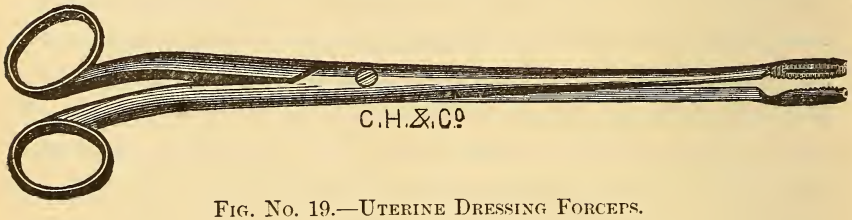


Fig. No. 19.—Uterine Dressing Forceps.

The red spot may be only a few drops of blood which has just passed out of the os, surrounded with some mucus adhering to the neck of the womb, simulating an ulcer somewhat. Still we may not be misled if we recollect that, in the case of the true ulcer, we would have pus covering this red center, unless we had previously wiped it away; and again, in the true ulcer, we have the depressed center, with irregular white border, which can not be wiped away. Surrounding this whitish margin we may have the mucous membrane considerably inflamed and quite red. Especially is this so, if it is caused from the wearing of a hard pessary.

Treatment.

True ulceration, I believe, will seldom be found in the robust patient; and, when we find it, we will have need to recollect that good nourishment is a desideratum. Remedies calculated to build up the system by exciting healthy glandular action, healthy secretion, assimilation, and excretion, as well as general nerve strength, are needed. They may be found among the following remedies, selected according to the peculiar symptoms of each case: *Merc. pro.*, *Ars.*, *Phytolac. dec.*, *Nux*, *Cal. carb.*, *Sepia*, *Lachesis*, *Lycopodium*, *Iodium*, *Thuja*, etc. As a local application I would use *Solution Iodine*, twenty grs. to the ounce, applied with a camel's-hair pencil daily, applying it only to the center of the ulcer, or, in case of the fissure, to the bottom of it, first removing the pus with a bit of cotton. This will cause granulations to fill up the depressed surface, and, when that is accomplished, the mucous membrane will form over the ulcer. God only knows how. He, acting through established law, has made provision for the restoration of solutions of continuity of tissue. How this process is accomplished, either in bone or flesh, we are as ignorant as the new-born babe. Still, to place the system in a favorable condition, and sometimes aid nature, seems to be our privilege, though we know not the process of cure more than we can understand the selective affinity in the animal or vegetable world, which selects and appropriates food for the various parts of the animal or plant, from elements, to our dull sense, apparently as diverse as possible. But so it is, and probably so it must remain.

CHAPTER XVI.

VAGINITIS—ADHESIONS IN THE VAGINA FROM INFLAMMATION—DIPHTHERITIC INFLAMMATION OF THE VAGINA—PERI-VAGINITIS PHLEGMONOSA DISSECANS.

Vaginitis.

This term indicates an inflammation of the lining membrane of the vagina. It is more frequently chronic than acute. An acute attack, resulting from cold, is denominated

CATARRH OF THE VAGINA.

It may attack girls or women of any age. In *acute* attacks the symptoms most complained of are, *heat*, *burning*, and *itching* of the part. The inflammation generally affects the mucous membrane of the labia at the same time, and, consequently, it sometimes becomes very painful in walking, as the moving of the limbs chafes the labia, already inflamed, and causes great pain. In two or three days after an acute attack of *vaginitis*, which is often ushered in by chilliness of the whole body, there is pain in the limbs, back, etc., generally an increase of temperature, and a rapid, wiry pulse, tongue generally with a white coating, loss of appetite, with sometimes nausea and vomiting.

Very often these symptoms last mentioned are the only ones complained of to the physician, and he is liable to make a diagnosis of *int. fever*, or *bilious fever*, or congestion of the *stomach*, or *stomatitis*. After the lapse of a few days, however, there is a copious flow of mucus and muco-purulent matter from the vagina, which is more likely to cause the patient to make known to the physician the true state of affairs. By this time the patient will generally feel inclined to take to her bed, if she has not done so already.

I have here described the more violent form of acute attacks of vaginitis. The large majority of cases are more mild in their symptoms. These severe acute attacks are usually due to cold taken at the menstrual period, when we are likely to have also some *metritis* complicating the *vaginitis*. Tedious labor, where the head is impacted in the vagina, is a cause of severe vaginitis occasionally, and is to be avoided if possible, even if it is necessary to use instrumental delivery. It is much safer in skillful hands than the long impaction of the head.

Traumatic lesions from the use of instruments in labor, craniotomy, or removal of uterine polypi, or uterine fibroids, or other violence, the use of strong vaginal injections, excessive copulation (or violence of the act, especially in those just married) may produce acute inflammation of the vagina and labia.

The *specific* inflammation of the *gonorrhœal* poison will be discussed under its proper head. The differential diagnosis is sometimes difficult. The character of the patient and the history of the case will aid us some in distinguishing the specific from the non-specific. Objectively and subjectively, the symptoms are much alike. Where the patient is of good character we usually will, of course, have the non-specific inflammation, while in the case of prostitutes we may have non-specific inflammation from causes mentioned; still, they are comparatively rare among these women.

In gonorrhœal inflammation, generally, painful micturition is one of the first symptoms, while in the non-specific it comes on later in the case, if at all. The smarting, even then, is mostly confined to the interior of the labia, and not to the tract of the urethra, as in specific inflammation. *Bubo*, which often results in the female (though not as often as in the male) from gonorrhœal vaginitis, seldom, if ever, accompanies non-specific inflammation of the vagina.

This acute inflammation generally causes so much ten-

derness that even a digital examination is extremely painful; and I would specially warn all young physicians to not attempt to introduce a speculum in such cases. The swelling and tumefaction of the parts, as well as the tenderness and vaginismus, lessen the size of the vagina, and make the attempt to introduce the speculum a cruelty.

We may have in these cases of *acute vaginitis* various sympathetic symptoms very much resembling those produced from uterine disease—pain in the back and limbs, constipation of the bowels, weakness, etc., etc. This acute inflammation sometimes produces abscess in the labia majora, which is particularly embarrassing with newly-married ladies, and it is just this class which is most frequently affected with abscess of the labia. In these cases it will sometimes be found that the inflammation first attacked the labia, and spread to the vagina.

Ascarides sometimes produce this disease in young girls, and sometimes from want of cleanliness of the parts, in conjunction with a sudden cold, vaginitis may be developed.

Chronic Vaginitis is more common than the acute. It exists in a sub-acute form in many women for years, producing leucorrhœa, sometimes painful vaginismus, which makes the act of copulation very painful, if not entirely impossible. In other cases there is little tenderness or heat, but, on the contrary, a relaxed cool state of the parts; still, upon examination, the vaginal mucous membrane looks red, and we observe an inordinate amount of mucus, and sometimes mucopurulent matter. This discharge is usually so profuse as to be exceedingly annoying to the patient. Generally there is little urethral irritation in this chronic form of vaginitis, nor is there as much disturbance of the general system as in the acute form.

The causes which tend to produce this *chronic sub-acute vaginitis* are colds, resulting in a sort of *catarrh*, which does not get entirely well until another is taken, and so on. Fre-

quent child-bearing, as well as miscarriages, tend to leave the parts either irritated or weakened, and consequently more sensitive to cold. Excessive venery, want of cleanliness, the wearing of pessaries for a long time—and, for that matter, a short time—will produce vaginitis in some women. The intercourse with husbands who have, at some previous period, been afflicted with syphilis is said, by some authors, to produce a mild vaginitis; but, in my opinion, based on experience, the most frequent cause of chronic vaginitis is displacement of the uterus—displacements of either variety do tend directly and materially to produce this difficulty. The use of washes to prevent conception is another fruitful cause of this disease, as well as the use of strong injections and the application of caustics to the os uteri.

The excoriating nature of some of the discharges from the uterus passing over the vaginal membrane tend to inflame it, and are the cause of the obstinacy of the vaginitis, in some cases, in spite of all treatment, because the exciting cause remains undiscovered and unrelieved.

The scrofulous habit may predispose largely to the development of the disease, as well as the debility of excessive fatigue. The presence of tumors in the pelvis of any kind will, of course, largely tend to produce and keep up inflammation of the vagina.

Treatment.

The *acute* attack of *vaginitis* will require *Aconite* first, last, and all the time, taken in the second or third attenuation, every three hours ordinarily. Some cases, showing depression of strength, hot flashes, with chillings, require *Ars. alb.* 3^{x}, or higher, if you please. Perfect rest should be enjoined. Evacuate the bowels with enemæ of soap and water, place the patient in a warm sitz bath for twenty minutes three times a day, apply warmth to the feet, inject into the vagina, and also apply a soft cloth between the labia wet with a wash made of *Tr. Aconite* ʒ i, *Aqua*, O. ss. Still maintain rest and

give a non-stimulating diet—cold water may be drank of moderate temperature, omitting tea and coffee. After a day or two following this treatment, I usually apply to the vaginal surface an *ointment* of *Bell.* diluted with simple cerate, about four hundred per cent, applying it with the finger thoroughly, which relieves the tenderness rapidly. Another excellent application is a wash (used with the syringe) of *Hydrate of Chloral* 15 grs. to *aqua* ℥ i, injected every four hours.

As soon as the tenderness disappears sufficiently to admit of so doing, it is well to make a thorough physical examination with the speculum and sound, and also see that there are no tumors in the vagina causing irritation. If uterine displacements are present, we need not expect any treatment short of placing the organ *in situ*, and maintaining it there, will be of any avail in permanently relieving the vaginitis. Tumors, of course, should be treated according to the kind and condition. The use of vaseline, introduced into the vagina on the finger two or three times a day, will be found very serviceable (the patient may be taught to do this). Copulation, of course, is to be interdicted. Warm drawers, stockings, and shoes are to be advised, with moderate exercise during convalescence. In severe cases, especially those caused from severe labor, it is necessary to insert into the vagina some solid material, to keep the sides of the vagina separated and prevent adhesions. These need not be introduced until the active symptoms have, in a measure, subsided. They may consist of a tampon of cloth, well oiled, or smeared with vaseline, and left in position twelve hours. If the patient is seen often by the physician, he may omit the tampon, if he introduces the ointment on one or two fingers daily.

To Prevent Adhesions of the Labia, which might occur, if neglected, it is well to keep them separated with an oiled fold of cloth, lint, or cotton. In case we have adhesions already formed, which will sometimes occur in a short time, we

must break up the adhesions. This can be done by separating the labia, and using a blunt instrument to lacerate the attachments, if they are few; but if numerous, or there is a considerable extent of adhesion, the scalpel should be used to divide the attachments, and the labia must be kept well separated with oiled lint or cotton till healed. I often find that, after removing the cause of the complaint, I have no disease left to treat. The leucorrhœa, weakness, tenderness, and all, have vanished.

The remedies most serviceable in chronic vaginitis are *Cal. carb.*, *Sepia*, *Mercury*, *Nux*, and *Puls.* (*Puls.* especially, if there is amenorrhœa as a complication.) An injection of simple *Chlo. Potass.* in solution, of the strength of about five grs. to the ounce, is excellent, combined with the vaseline applications mentioned in convalescence from acute vaginitis. In *chronic* vaginitis we have little fear of adhesions forming. Sometimes *Can. ind.*, *Canthar.*, *Cubeb.*, or *Bell.* may be given to relieve the urethral irritation; but they are seldom needed, as the cure of the vaginitis results in the cure of the urethritis also. Tepid soap and water vaginal injections are desirable, used daily, to cleanse away the discharge, and allow of the direct application of the other treatment. Nourishing diet, good air, freedom from care and worry, are great aids in the treatment.

In cases of very young girls we must be sure worms are not the active cause. If they are, they must, of course, be removed. Injections into the rectum of thin starch water, with a few drops of *Spts. Turpentine*, is an efficient remedy for these little pin-worms, which are sometimes the cause of vaginitis. Open the vagina gently, and wipe away any that may be seen, with a soft cloth. Bathe the parts often with tepid water, and gently apply vaseline, cosmoline, or basilicon ointment, twice a day. The remedies to be given are the same as for the adult.

Indications for Remedies in Vaginitis.

Aconite.—Vaginitis, with dizziness; fear of death; restlessness; rapid, wiry pulse; hot, dry skin.

Arsenicum.—Vaginitis, with nausea; aching of the entire body; chilliness, alternating with hot flashes; profuse yellowish leucorrhœa.

Arnica.—Vaginitis from traumatic lesions; excessive venery; loss of appetite; bitter taste in the mouth; sensation of cold on top of the head, with nervous depression.

Belladonna.—Vaginitis, with bearing-down pains; vagina hot and dry; face flushed, with great thirst; urine copious, pale, and involuntary; pulse full and throbbing, great disposition to perspire.

Bryonia.—Vaginitis, with dysmenorrhœa; menses too profuse, complicated with pleuritis or mucous diarrhœa; mouth and lips dry, with nervous depression and dry, hacking, tickling cough.

Cannabis Sativa.—Vaginitis, with copious milky leucorrhœa; labia swollen and tender; burning in the urethra; painful micturition; palpitation of the heart and frightful dreams.

Cal. Carb.—Vaginitis, with leucorrhœa like milk; dark offensive urine; vertigo when walking; glandular enlargements in any part of the body; sweating of the palms of the hands; feet cold and damp. (Cowperthwaite.)

Cantharis.—Vaginitis, with dysuria; dryness of the vagina, with nymphomania.

Cimicifuga.—Vaginitis, with pain in the ovaries; dysmenorrhœa; complicated with neuralgia or rheumatism; dull, frontal headache.

China.—Vaginitis, after labor; red sediment in urine; painful micturition; throbbing headache; roaring in the ears.

Cocculus.—Vaginitis, with menorrhagia; dizziness with nausea.

Carb. Veg.—Vaginitis, with an aphthous condition of the parts; indigestion; offensive flatus; hoarseness; tendency to sleep during the day; can not sleep at night.

Conium Maculatum.—Vaginitis, with severe itching in the vagina; cutting pains in uterus, ovaries, or breast, with increased sexual desire.

Digitalis.—Vaginitis, with palpitation of the heart; membranous dysmenorrhœa.

Dulcamara.—Vaginitis, with amenorrhœa and watery diarrhœa; pain in small of the back.

Ferrum.—Vaginitis, with redness of the face; rush of blood to the head; amenorrhœa, epistaxis, etc.

Gelseminum.—Vaginitis, with sharp pains in the uterus and dizziness; pain in the occiput; trembling and weakness.

Graphites.—Vaginitis, with profuse leucorrhœa; itching of the pudenda, with morning sickness; aversion to animal food; nausea from the smell of food; despondency and weakness.

Hamamelis.—Vaginitis, with uterine hemorrhage, bleeding hemorrhoids, etc.

Hyoscyamus.—Vaginitis, with hysterical symptoms; excessive sexual desire; immodest exposure; pupils dilated; eyes look wild.

Ignatia.—Vaginitis, with frequent micturition; sighing; sensation of weakness; restless sleep.

Iodium.—Vaginitis, with induration of the uterus, and swelling of the ovaries; mammæ small, undeveloped; scrofulous conditions, with dark hair and eyes.

Kreosotum.—Vaginitis, with yellow leucorrhœa; violent itching of the labia.

Lachesis.—Vaginitis, with hot flashes, dimness of vision; vertigo, with hysterical symptoms, in old women.

Lycopodium.—Vaginitis, with dryness in the vagina; excessive appetite, with hiccough; weak memory, with constipation.

Platinum.—Vaginitis, with nymphomania; bearing down pain in the abdomen; objects appear small; sad, irritable mood.

Pulsatilla.—Vaginitis, with scanty menstruation, from taking cold; leucorrhœa thick, like cream.

Sepia.—Vaginitis, with great tenderness; vagina dry and hot; urine turbid, with reddish sediment; yellow, sallow complexion; prostration of strength.

Sabina.—Vaginitis, with thick, offensive leucorrhœa; menses too profuse; strangury; dysenteric symptoms; urging at stool; vertigo when attempting to walk, etc.

Sulph.—Vaginitis, with corrosive leucorrhœa; constipation; tenderness of the abdomen; troublesome itching of the labia.

Thuja.—Vaginitis, with mucous leucorrhœa; great itching of the genitalia; useful in cases where there is a syphilitic taint.

Verat. Viride.—Vaginitis, with congestion of blood in the brain, especially affecting its base; sense of fullness in the back of the neck; irritable disposition; dilated pupils; gastralgia, etc.

Zincum.—Vaginitis, with irresistible sexual desire; leucorrhœa thick, bloody, etc.; dizziness, with weak memory; mouth and lips dry.

Diphtheritic Inflammation of the Vagina.

When we have *diphtheria* affecting the throat, in severe cases we may have also a *diptheritic exudation* in the vagina, preceded and accompanied by vaginitis; and we may also have this *diphtheritic* inflammation in the *vagina* without the throat manifestations. Ichorous discharges from the uterus may produce it in cases of carcinoma of the uterus, or in cases of ulcerating fibroids or polypi, or in cases of vesico-vaginal fistula, measles, small pox, typhus, and cholera; and we sometimes have this complication in the puerperal patient.

This diphtheritic inflammation may be confined to a small part of the mucous surface of the vagina, or may cover it and the labia entirely.

Diagnosis.

Its symptoms are those of vaginitis, with the additional one of the formation of diphtheritic false membrane, and we have the symptoms of general exhaustion more marked and decided.

Treatment.

Locally, I find the most benefit from *Solu. of Iodine*, one or two grains to the ounce, applied with a sort of vaginal probang, made by attaching a small sponge to a piece of whalebone, and swabbing out the vagina thoroughly, after washing it out with tepid soap and water with the small vaginal syringe, using this treatment every twelve hours. *Iod. of Ars.*, *Kali chlo.*, *Merc. pro.*, *China*, or *Rhus*, etc., are usually the indicated remedies. The removal of the cause should, of course, engage our earnest attention. Granulations are more numerous after the exfoliation of the membrane than in ordinary vaginitis, and very great care is necessary to prevent *vaginal adhesions*. These must be prevented by the introduction into the vagina of the oiled fold of cotton, which must be frequently renewed.

Peri-vaginitis Phlegmonosa Dissecans.

I have never seen a case of this disease, and I quote from Ziemssen:*

"Three cases of this affection have been described; its etiology is unknown; in Marconnett's† two cases there was suppurative inflammation of the submucous connective tissue, which caused the separation of the entire vagina, including the mucous membrane and muscular layer, and the vagina was expelled in consequence in the shape of a perfect tube,

*Ziemssen, Cyclopædia, Vol. X, p. 496.
†Marconnett, Virchow Archiv., b. 34, p. 1–2.

together with the mucous layer of the vaginal portion of the cervix. Healing followed, with suppuration.

"The case of Minkiewitsch* was of a more malignant character. In this instance also the vagina was expelled *in toto;* but the patient died, and, at the autopsy, the posterior vesical and anterior pelvic walls were found gangrenous."

*Minkiewitsch, Ibid.,b. 41, p. 437.

CHAPTER XVII.

IMPERFORATE HYMEN—ATRESIA OF THE HYMEN (CONGENITAL AND ACQUIRED)—HÆMATOMETRA, ETC.

The hymen in the adult female has usually an opening large enough to admit the point of the index finger. In some women it is smaller than this, and in a few much larger, so that copulation, and even delivery, have been accomplished in a few instances without its being ruptured. But occasionally it has no opening, and is then termed an imperforate hymen, or atresia of the hymen, the former term being applicable to the case which is congenital, and the latter, when it has resulted from inflammation.

The congenital imperforate hymen is the only variety I can find mentioned by any author; but I have had two cases of acquired atresia of the hymen, so that I know this condition may exist occasionally independently of congenital abnormal development. These two cases developing after menstruation had become established, lead me to suspect that some other cases, which are, of course, only discovered at puberty, may have been acquired in girlhood.

The two cases referred to were patients of my own; one was seen and examined by the late Dr. M. Troyer, of Peoria, Illinois, who, after the most thorough examination with the unobstructed eyesight, and the use of a probe, confirmed my diagnosis. The other similar case no physician examined but myself. Both had menstruated regularly, and had been troubled with leucorrhœa and soreness. Menstruation was arrested in both cases, had at first diminished in quantity and finally ceased. One had not menstruated for

four months, the other for seven; both had serious symptoms of lung disease, accompanied with poor appetite, bad digestion, and considerable emaciation—one was about eighteen, the other twenty-three years of age. The hymen in both cases was exceedingly tough, and about as thick as sole leather. There was a considerable accumulation of retained menstrual flow in one case, and but very little in the other. I operated on both cases with the result of restoring the general health and the re-establishment of the catamenia. Both are still healthy. One has married and has three children; the other is well, robust, and fleshy, with no evidence of lung trouble.

I judge from the history of these cases that inflammation of the vagina and hymen had caused a thickening of the membrane, and granulations had gradually closed up the openings, which probably had been small originally, and were certainly cases of acquired imperforate hymen.

It is usual in cases of congenital imperforate hymen that after the adult age, the menstrual flow being retained in the vagina, causes a bulging outwards of the membrane, and usually produces serious disturbance of the general health. This retention of blood in the vagina and uterus is called

Hæmatometra.

In these cases the menstrual secretion is discharged into the vagina, and may, for a time, cause no very serious consequences, though often causing pain in the pelvis, and a sense of weight and tenderness. Gradually, as month after month passes, and the flow is increased and still retained, the suffering is greatly increased, and the general health suffers in a marked degree. Generally *Emenagogue medicines* are administered by physicians, and the mother uses all the domestic remedies she knows of or can hear of, and the poor girl suffers on without relief, because the *cause* of the *amenorrhœa* is not discovered.

This is a sad picture, but a true one, as the remedies often used by the old school for amenorrhœa are powerful.

In homœopathic practice the effects of the remedies usually given are less deleterious, but still of no avail in remedying the difficulty when caused by an imperforate hymen.

In cases of this kind, combined with absence of the ovaries, where attempts at copulation have been made, the hymen has been pushed up into the vagina, and has been mistaken for atresia of the vagina, as there was no menstrual fluid to press the hymen down.

This class of cases, however, is exceedingly small. The physician can not suggest making even a digital examination of girls affected with *amenorrhœa*, until remedies have been given and proven inefficient; and not then, unless the age of the patient and her sufferings point clearly to something abnormal in the physical development. There is delicacy, tact, and judgment to be used in these cases. But the patient should not be allowed to suffer and die from excessive modesty and backwardness in ascertaining the true nature of the difficulty.

Treatment.

As has been suggested in the description of this disease, medicines are of no avail. A resort to an operation is imperatively demanded. It consists in making a free incision into the hymen by first inserting a sharp-pointed bistoury, and then inserting a grooved director, to aid in slitting the entire membrane. Through this slit the retained menstrual secretion should be freely evacuated, and the vagina thoroughly cleansed with soap and water, followed by carbolized water; then smear the whole of the interior of the vagina with vaseline, and insert a vaginal dilator of medium size, and retain it there with a **T** bandage. It is usually best to operate with the patient under an anæsthetic; but it is not always necessary, as I have found from experience. Still I rather prefer the patient be insensible to the pain of the operation.

Every day, until the parts heal, it is necessary to remove the dilator, wash out the vagina, and replace the instrument; but if we use an open cylindrical speculum for the dilator, it may be allowed to remain for three or four days, washing out the vagina with carbolized, lukewarm water, through the speculum, once or twice daily.

Remedies may now be given with excellent effect, chosen in accordance with the totality of the symptoms. Usually *Puls.*, *Cal. carb.*, *Ars.*, or *China* are indicated. Nourishing diet and fresh air are indispensable.

It is true, any number of sympathetic symptoms may arise in such cases, hysterical and otherwise, which may be met with indicated remedies; and we can expect that they all will pass away upon the cure of the difficulty in the hymen, causing the retention of menstrual flow, which has poisoned the blood, from its reabsorption and decomposition.

Ramsbotham, Simpson, and Le Fort report cases terminating fatally from small puncture of the imperforate hymen, which allowed of the admission of air, decomposition of the retained blood, and septicæmia following. Free incision and cleansing should be the rule, in order to prevent this result.

CHAPTER XVIII.

UTERINE HEMORRHAGE.

The term uterine hemorrhage is applied to an abnormal and excessive loss of blood from the uterus. This includes, of course, menorrhagia. It means menorrhagia, and more than this, also. It may occur during the course of gestation, or otherwise. It may occur independently of the menstrual function caused from some irritation within the uterus from tumors. It may supervene upon delivery. It may be caused from ulceration. It may induce and be caused by an atonic or anæmic condition of the system.

Hence, we see that uterine hemorrhage needs to be thoroughly studied; for a clear understanding of the *cause* of the hemorrhage is often of the utmost importance in regard to the treatment of the case.

I have discussed the hemorrhage caused from uterine tumors under that head, and excessive menstruation under the head of menorrhagia; still there are many other conditions which may cause hemorrhage from the womb, and to these conditions I invite attention.

First, the accidental hemorrhage, occurring during gestation, caused from a partial separation of the placental attachment. Sometimes this flow simulates regular menstruation, and the patient does not imagine herself pregnant at all, and often indignantly repels the intimation. I have seen several cases of this kind. I will relate one case as somewhat typical.

In May, 1863, I was called to see Mrs. D., aged fifty-three years, who had been flowing, she told me, almost daily for five months, and that once a month the flow was exces-

sive, accompanied with some uterine pain. This time being one of her monthly flows, I found her apparently having some pain in the uterus, though flowing freely. I learned from her that the menses had about eight months before ceased for about three months, since which time they had been as stated. I requested a vaginal examination, which she at first refused, thinking it quite unnecessary, but she finally consented, and I found the os uteri open, the size of a dime or more, and through it I could feel something presenting. I tamponed the vagina and gave *Secale cor.* This increased the pain, and in two hours I removed the tampon and found a fœtus half-way through the os. This I abstracted, which greatly astonished the patient and her friends. She made a rapid recovery. In several instances I have had a similar experience with women in their first pregnancies, and at other times.

Etiology.

After confinement, and after a miscarriage, women often suffer from severe floodings. This may be due to the retention of a part or the whole of the placenta, or after labor to a failure of contraction of the uterus, leaving the blood-vessels dilated where the placenta had been detached. I have many times been called to see patients who were flowing excessively after an abortion, and their physician either failed to realize the cause or was unable to use the means for relief. These cases are very trying, as it is generally the case that both patient and friends, and sometimes the physician, insist that "all has come away." They are generally led into the error by mistaking a large clot for the placenta.

We may lay it down as a rule that in miscarriage there is never excessive hemorrhage after the fœtus and placenta are discharged. If active, troublesome hemorrhage supervenes after abortion, we know something is still retained.

During the first few hours there may be an excessive flow from relaxation of the muscular tissues of the uterus, and a condition of sub-involution of the organ, these conditions leaving the veins open and liable to bleed, as is also the case in some instances after labor at term.

The only safety from hemorrhage lies in the full, perfect contraction of the uterus, following the delivery of the child, or fœtus, and the placenta, or membranes. Careful attention should be given to the complete discharge of the membranes after abortion, as their retention in the uterus may cause hemorrhage from the efforts of the uterus to dislodge them, alternately contracting and relaxing. During the period of relaxation the blood is effused into the uterus, and expelled with each contraction, until the membranes are entirely expelled.

Hemorrhage may result from intra-uterine fibroids, uterine polypi, granulations of the endometrium and cervix, uterine hydatids, mucous polypi in the uterus, inflammation of the cervix, cauliflower excrescence, and cancerous ulceration.

Most of these conditions I have spoken of under distinct heads, and the reader is referred to them for description, etiology, and treatment.

In some persons there is a certain predisposition to hemorrhage, called a *hemorrhagic diathesis;* and there is in a few this tendency to hemorrhage, without the outward manifestations of any peculiarities characteristic of this diathesis.

The *hemorrhagic diathesis* is marked by the light complexion; thin, rosy skin; the lymphatic temperament; the large, languid eye; the slow, compressible pulse; the languid manner, etc. These symptoms, more or less, indicate the nerve weakness, upon which, it is probable, the whole difficulty depends. Want of tonicity or strength in the nerve, giving rise to relaxation of the veins and capillaries, allows of the bursting out of the blood from its natural channels by first

allowing of distension, and, there not being power enough in the coats of the vessels to withstand the pressure, a laceration of their coats is the result, and a hemorrhage ensues.

An extremely *hyperæmic* condition of the system may largely tend to the production of this diathesis in causing distension and consequent weakening of the blood-vessels, and causing the nerve depression, to some extent, by the pressure exerted upon the brain from over-fullness of the blood-vessels there. This peculiar condition may be acquired, or may be inherited. It is sometimes manifested through several successive generations.

When there is in a patient this peculiar predisposition, of course, she is liable to hemorrhage from causes which would produce no effect in others. Recognizing this predisposition, we may use such preventive treatment, many times, as will prevent the occurrence of hemorrhages, which otherwise might be severe, or even fatal. (The time will come when the people will depend as much upon the physician to prevent diseases as they now do to cure them.)

The causes of uterine hemorrhage, which are general in their application, consisting of the atonic and hyperæmic condition, conjoined with the lymphatic temperament, which we have mentioned, are supplemented in uterine hemorrhage in pregnancy by certain other causes which operate directly to produce the hemorrhage.

First, the partial separation of the placental attachment to the uterus is the direct cause of the hemorrhage. This may result from straining, lifting, or fright, from a fall or direct violence, or from the contractions of an irritable womb, independently of these causes.

The attachment of the placenta directly over the neck of the uterus, called *placenta prævia*, causes hemorrhage also; for as the body of the uterus expands it breaks off a portion of the attachment, and hemorrhage results (often only in small amount, however), and is discharged *per vaginam*.

The inertia of the womb causes, in some cases, sub-involution of the organ, and may result in hemorrhages for months, generally occurring at the menstrual periods, and properly termed menorrhagia.

Diagnosis.

Of course, the discharge of blood *per vaginam* is the usual symptom of uterine hemorrhage, being at a period unconnected with menstruation, or protracting that event, and being excessive in quantity at the regular period. If of small amount only, when not connected with menstruation, it constitutes a hemorrhage.

A blanched countenance, white lips, coldness of the extremities, feeble pulse, etc., are symptoms of excessive hemorrhage, and may or may not be accompanied with fainting spells. When fainting comes on, the flow of blood is generally arrested temporarily.

Sometimes uterine hemorrhage may go on to a considerable extent without blood being discharged *per vaginam*, being retained by clots in the vagina or os uteri. This is particularly the case in post partem hemorrhage; the uterus, having failed to contract, may become distended with blood, and very little pass from the patient, producing all the alarming symptoms enumerated. And occasionally this may occur after the uterus has contracted, apparently quite well, slight hemorrhage at first, forming a clot at the os. As the blood continues to ooze out, the uterus relaxes, the blood-vessels open, and the hemorrhage becomes rapid, and the patient manifests alarming symptoms, first noticed, perhaps, by the occurrence of a faint, and our attention is then called to the other symptom of hemorrhage, and, on examination of the uterus, it is felt distended to about the size it was before delivery.

Treatment.

The first thing to be done in uterine hemorrhage is to take such action as will at once arrest the flow of blood. In *post*

partem hemorrhage the first thing to do is to turn out the clots in the vagina, and, if the uterus does not then contract, we should pass the fingers within the os, and remove all the clots from it. If this is not effectual, pass the whole hand within the uterus, and break up the clots, and gently move the hand around the sides of the cavity of the womb, applying the other over the abdomen, and using gentle friction with the extended palm. It is well at first to administer a half ounce of brandy, with a half-teaspoonful of *Flu. Ext. of Ergot* in a little warm water.

If these remedies and means fail, take a Davidson's syringe, and inject into the cavity of the womb a quart or two of very warm water, and in a half hour give another dose of brandy, and follow it with the *Secale* in fifteen minutes, if the uterus does not contract. In the most extreme cases we may apply the *Persulphate of Iron* directly to the intra-uterine surface, by means of a sponge attached to a sponge-holder, and swab it out in that way. An evenly applied bandage should be tightly applied about the abdomen, to give support to the abdominal muscles, and aid in the holding of the uterus in a state of contraction. The application of ice to the abdomen, and introducing pieces of it into the uterus, tends to shock the system too severely, as well as chill the patient, and induce inflammation. The trusting to a single dose of *Bell.* 200^{x}, or *Ipecac.* 30^{x}, which has been claimed by some to be efficient, I have never tried, and can not recommend from personal experience.

After the hemorrhage has ceased I have given *Ipecac.* 3^{x}, or 6^{x} in some cases to prevent recurrence of the flooding, apparently with good effect. *China*, *Secale*, *Nux*, or *Ars.* are sometimes indicated. Should the hemorrhage precede the delivery of the child, every effort should be made to deliver as rapidly as possible. If the os is not dilated, it and the vagina may be tamponed, which would restrain the flow till the os is dilated so that artificial delivery can be attempted

and effected, while subsequent to the delivery the tampon is inadmissible, as restraining the flow externally to the uterus would not prevent the hemorrhage going on actively into the cavity of the organ, as has been before stated. While the child is still in the uterus its presence would compress the bleeding vessels from above, while the clot formed from the use of the tampon below would restrain the flow and keep it under restraint.

In cases of hemorrhage preceding and threatening abortion (if excessive) we may use the tampon. (The inflatable rubber bag, with tube and stop-cock, is the most convenient means.) If the flow is slight I would give *Secale* 3^{x} every two hours, and order perfect rest in the recumbent posture, following the arrest of the hemorrhage with such remedies as seemed to be most indicated in each case.

If the fœtus has been expelled and flowing is going on severely, we must see to it that the placenta (or membranes) is removed, whether the case is one of a few days' or five months' duration. I have removed one where it had been retained for seven weeks after the delivery of a fœtus, causing almost daily hemorrhages. The patient's physician (though of the most regular kind, and in excellent standing) had failed to realize that the placenta was retained; still at my first visit I removed it, and the patient had no more hemorrhage and rapidly recovered. So the great length of time a hemorrhage has continued must not prevent us from seeking for a retained placenta, if the hemorrhage dates from the time of the miscarriage.

To remove a placenta retained after a miscarriage, I pass within the uterus an ordinary uterine sound considerably curved, and gently sweep it around the cavity of the uterus, and by this means detach that portion of the placenta which is adherent—very often uterine contractions are induced by this procedure. If so, very well; if they are not, I would give about twenty drops of *Flu. Ext. of Ergot* in a little warm

brandy and water, every twenty minutes till contractions ensued, or until three or four doses have been given; sometimes the long, slender placenta forceps, or the uterine polypi forceps, can be introduced, and greatly aid us in extracting the placenta.

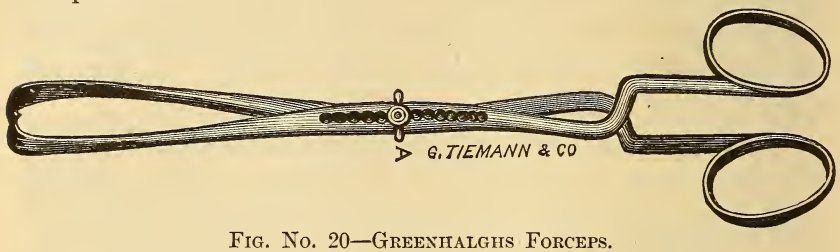


Fig. No. 20—Greenhalghs Forceps.

In some cases when the blood flows freely from the vagina, following the expulsion of a fœtus, it may be best to at once tampon the vagina and allow the blood to fill the uterus, which, being of small size, would not endanger life, and which, by its presence, may stimulate uterine contractions of so strong a character as to detach the placenta and force out both placenta and clots. Warmth is to be applied to the feet in these cases, and the lower limbs and body should be kept warm with covers of flannel.

In case there was a fibrous polypus in the uterus of some size, causing the hemorrhage after abortion (which is almost an unknown instance, as pregnancy will seldom occur in a womb occupied with a polypus, nor will the polypus develop very often, if ever, after pregnancy has occurred), we will be likely to discover it in our exploration with the sound, used to detect and dislodge the placenta, in which case it is to be treated by as rapid removal as possible, on the general plan of treatment mentioned under the head of uterine polypi.

These cases do not suffer much from pain, and, consequently, we have few pain symptoms to aid us in selecting remedies. We must look to the pulse, the countenance, the general system, as well as the hemorrhages themselves, for

indications for remedies. *Aconite*, *Bell.*, *Ipecac*, *Secale*, *Hydrastis*, *Nux*, *Plumb.*, *Opi.*, *Merc.*, *Ars.*, *Puls.*, etc., are to be studied in these cases, and given, according to the symptoms homœopathic to them.

In cancerous ulceration producing hemorrhage, and in cases of inflammation of the cervix, vegetations of the endometrium, uterine tumors, etc., I refer the reader to these special diseases.

The hemorrhagic diathesis is to be treated according to the prominent indications in each case. *Nux*, *Ignatia*, *Ars.*. *Bry.*, *Rhus*, etc., which act to tone up the general nervous system, are indicated, sometimes including such remedies as *Phytolac.*, *Cal. carb.*, *Sulph.*, *Can. ind.*, *Iod.*, *Kali iod.*, etc., with reference to the glandular system. These cases are often troubled with epistaxis, and free hemorrhage results from very slight wounds. In these cases we may, with advantage, also study *Trillium*, *Cimicif. rac.*, and *Erigeron*, which have proven highly beneficial in a disposition to hemorrhage, when otherwise indicated by the accompanying symptoms.

Rest and Position.—The pregnant woman, attacked even with slight hemorrhage, should at once assume the recumbent posture, and remain quiet. The mind must not be agitated by care or conversation. If the attack is severe the patient should lie with the limbs and hips elevated, and the head resting upon a small pillow. Do not raise up the patient because she is faint, but lower her head and raise the body and limbs. In connection with this care as to rest and position, the patient should take *Secale cor.*, 6^{x} or 12^{x}, every two or three hours. (The value of this remedy in minute doses, to prevent threatened abortion and premature labor, is now recognized by the old school also, which is a recent concession to homœopathy in them.) After the flow has been arrested two or three days the patient may be allowed to sit up a little, and very soon take gentle exer-

cise, but no hard labor or riding over rough streets should be allowed. *Sexual congress* must be strictly prohibited in these cases.

Diet.—The diet must be as nutritious and easily digested as possible. Stimulants are, as a rule, injurious, except in cases of excessive floodings, when wine may be given temporarily, but not continued after the urgent symptoms are relieved. *Milk*, with a little salt, *beef tea*, *soup*, etc., are demanded to replenish the blood. The patient should be allowed to drink cold water freely, but she is better off without tea and coffee. Giving to the patient candies, cakes, pies, etc., is injurious. Let the food be plain, easily digested, and consisting largely of farinaceous materials. Much care needs to be exercised by the physician in regard to diet in all the diseases of women, but it is especially necessary in hemorrhage, as the system is drained of a large amount of this vital fluid, and it must have resources from which to gain a new supply.

Air and Light.—Give the patient fresh air to breathe, and some of God's sunlight to look at. The effect of a dark room and stagnant air is so depressing that we do well to avoid both.

CHAPTER XIX.

CERVICITIS AND ENDO-CERVICITIS, OR CATARRH OF THE CERVIX.

Cervicitis indicates inflammation of the neck of the uterus, affecting its entire substance. Endo-cervicitis indicates inflammation simply of the mucous membranes lining the cervix uteri.

Areolar hyperplasia of the cervix may simulate, and also be the result of, cervicitis.

Endo-metritis may or may not exist in connection with cervicitis or endo-cervicitis.

Endo-cervicitis is one of the most frequent diseases of young women, and in the recent acute attack is often termed catarrh of the cervix, or catarrh of the uterus.

Virgins are more liable to this disease than any other affecting the genital organs, and we often find it in old women after the climacteric period is passed. We would not intimate that middle-aged women are free from these diseases; far from it. Endo-metritis is, however, more common with them after they have born children. Cervicitis, on the contrary, is seldom found in the virgin or in women after the climacteric period, but is quite common in the child-bearing woman.

Cervicitis and endo-cervicitis may be either acute or chronic.

Diagnosis.

The most prominent indication of the existence of these diseases is a *leucorrhœal* discharge from the vagina; and, upon examination with the speculum, we find that the discharge is coming from the os uteri. On attempting to introduce the

uterine sound, we find tenderness often to so great an extent as to forbid the completion of the examination. On introducing the sound to the fundus of the womb, we find it normal in size, measuring, in the virgin, about two and a half inches, and in those who have born children, about three inches. (If we find enlargement of the size of the uterine cavity, we may know that we have endo-metritis, intra-uterine tumors, or a case of sub-involution.) This discharge from the cavity of the uterus varies greatly in appearance and quantity. Sometimes it is white and milky, sometimes yellow, sometimes green, and sometimes mixed with blood. Pressure over the hypogastric region produces little or no pain in cases of endo-cervicitis, uncomplicated with metritis or other troubles. The constitutional disturbance is, however, well marked, but is not distinctive of this disease, but consists of those symptoms peculiar to almost any disease of the genito-urinary organs. If any thing, restlessness is more marked than other symptoms. The patient is never satisfied to be still, is fretful about she knows not what. This is probably occasioned by a sense of irritation, she knows not where; but feels sure either the world, the people, or something is all wrong.

Very often this disease is mistaken for vaginal irritation by the physician (on account of these symptoms, and not having made a physical examination), and, consequently, the treatment has failed, and this is an additional cause for the patient to feel annoyed at the continuation of the leucorrhœal discharge, which, it seems to her, should be at once cured with one prescription. She will, therefore, go from one physician to another, with about the same success.

Barrenness, if she be married, is another result, which often causes much dissatisfaction, and it is little likely that conception will occur in a case of endo-cervicitis. Hence, if we have barrenness with leucorrhœa, we may mistrust at once a case of endo-cervicitis. Partial amenorrhœa, dys-

menorrhœa, or menorrhagia may also lead us to suspect this disease.

But the positive diagnosis rests in the specular examination, revealing the lips of the os of a bright red color internally, and the leucorrhœal discharge coming from the os, with the tenderness on introducing the sound, as well as the flow of blood often produced by its introduction, however gently it may be done.

In cervicitis there is present all these symptoms, indicating endo-cervicitis, and, in addition, enlargement and tenderness of the cervix, usually accompanied with some fever. sense of weight in the pelvis, often constipation and painful micturition. In these cases the gentle touch of the finger causes pain if the disease be acute, and she tells us copulation is extremely painful or impossible.

Etiology.

The causes of these diseases are various, and sometimes unexplainable. Cold at the menstrual period is probably the most frequent in the unmarried, producing a catarrhal condition of both vagina and uterus; or, in some instances, first affecting the vaginal mucous membrane, and extending to the uterine; in other cases, attacking the uterine cavity first. The cold taken when the vessels of the uterus are engorged with blood, and the mucous membrane is in a state of congestion, produces, usually, an arrest of the catamenia; and the retention of the menstrual fluid tends to produce irritation. The first condition produced is that of dryness, followed by exudation of the serum of the blood, which, after a time, gives place to the thick, mucous discharge. Again, perhaps a cold is taken, the case is neglected, and we have a fully developed case of endo-cervicitis almost immediately. In other cases, the cause seems to be in the debilitated condition of the system, aided by a very slight cold.

After miscarriage we have endo-cervicitis, resulting some-

times from an imperfect separation of the placenta; and we have cervicitis resulting from imperfect involution of the uterus after confinement. Again, the careless use of the sound; or the introduction into the cervix of instruments to produce abortion; or the injections of irritating fluids into the uterine cavity, either accidentally or designedly; also, the use of cold washes into the vagina, immediately after copulation, to prevent conception, all tend to cause endo-cervicitis. The presence of uterine polypi, fibroids, hydatids, etc., by their presence, tend to produce this disease; but it is with special reference to the uncomplicated form of endo-cervicitis and cervicitis that I am now speaking.

Lacerations of the cervix uteri, in confinement or otherwise, tend directly to cause these diseases. These fissures do not always heal readily, and cause much irritation to the surrounding tissues. When these lacerations heal kindly, there is left somewhat of a cicatrix, which must cause (more or less) a tendency to irritation of the cervix, producing cervicitis, endo-cervicitis, or areolar hyperplasia of the cervix.

Treatment.

Generally, we are not consulted in these cases till they become chronic; or, if we are consulted in the acute attack, we prescribe on general principles without making a vaginal examination; hence, we may often cure acute attacks of endo-cervicitis without being able (without examination) to specifically diagnose the case, more than to call it inflammation of the womb, or vagina; or to call it cold, catarrh, or something of the kind, as no lady expects to have a vaginal examination made in ordinary acute attacks, especially if the symptoms are not severe, which they are not, usually, in this disease, unless the inflammation extends to the muscular tissue, lining membrane, or peritoneal coats of the womb also, when, of course, technically, the case should be called metritis, endo-metritis, or peri-metritis, with endo-cervicitis.

If we are so fortunate as to see the case in its inception, the warm sitz bath, with warm foot bath, should at once be prescribed, with *Aconite* every one, two, or three hours, according to the urgency of the symptoms.

In the chronic form of the complaint, the remedies most useful are *Cal. carb.*, *Sepia*, *Phytolac.*, *Sulph.*, *Merc.*, *Kali iod.*, etc.

But we find that some local treatment is sometimes necessary. The introduction, daily, into the cervix of tents of cotton, saturated with *Bell.* and *Glycerine*, equal parts, or *Hydrastis* and *Glycerine*, or *Glycerine* alone, or *Glycerine and Iodine*, or *Solu. Iodine*, using the two latter prescriptions in cases where there was little tenderness, but much discharge. The sea-tangle tent or even slippery-elm tent may do good service; or we may fully dilate the cervix, so as to admit the finger to the fundus, and then apply *Solu. Iodine*, five grs. to the ounce (see Fig. No. 11, on page 150), or we may use *Hydrastis tr.* and *Glycerine* instead. This plan has proven efficient in my hands for years, and I propose to write in this work mainly my own experience in treatment.

Caustic applications I must warn the reader against. Never use them. They are unnecessary, and often very injurious, producing peri-metritis, sloughing, and, in some cases, atrophy of the uterus, as well as atresia of the cervix uteri.

The use of carbolized ointment with the sound, or *Suppositories of Hydrastis*, *Bell.*, or other remedies, are often highly beneficial, allowing them to remain in the cervix till they dissolve.

The application may be made directly to the neck of the uterus, either of *Glycerine* or *Glycerine* and *Hydrastis*, equal parts, or of a solution of *Iodine* 1^{x}; or we may use the 1^{x} attenuation of *Comp. tr. Iodine* with camel hair pencil; or a dossil of lint, moistened with a little of the medicine, may be gently pressed against the os through a speculum, always

attaching a string to the cotton to facilitate its removal. These applications may be made daily or once in two or three days in some instances.

The tents by their pressure seem to act beneficially in repressing the capillary circulation in the mucous membrane of the cervix. In case of tumors, of course, all treatment will be simply palliative until the exciting cause is removed. In this, as in other affections, a careful avoidance of the exciting cause is to be strictly enjoined.

Intra-uterine injections I do not recommend, as the methods I have suggested are efficient and less hazardous. Some physicians use them, however, satisfactorily. If any one should desire to try them, I warn them to be extremely careful of the temperature of the fluid used, as uterine cramps are a common result of the use of intra-uterine injections of low temperature. Caution is also necessary to use but a small amount, and to use it with the intra-uterine syringe, with a bulb on the tube about one and a quarter inches from the end to prevent its entering the uterus too far, and with an elastic air bag at the other extremity. The method of its use is as follows: Compress the air-bag to expel all the air, then insert the tube into the fluid we intend to inject; open the hand and allow the bag to expand, which will, by atmospheric pressure, cause the fluid to rise into the bag; then hold the tube upwards to let any air escape that may be in the bag; gently press the bag while the tube is elevated till the fluid begins to be expelled from the tube; then, while still holding the bag in the same state of compression, insert the tube into the os up to the bulb before mentioned, when we may compress the rubber bag gently till some of the fluid is pressed into the uterine cavity; then open the hand and allow the bag to expand, which will draw back a considerable amount of the fluid into the syringe again, when it may be withdrawn.

RESULTS.—Granulations of the cervix and in the uterine cavity, as well as uterine polypi and sterility, are likely to result from endo-cervicitis. The inflammation may extend to the muscular or even peritonæal coat of the uterus, causing what is termed peri-metritis. In rare cases pregnancy takes place, but miscarriage is likely to result.

Indications for Remedies.

Aconite—is indicated in acute attacks of endo-cervicitis, where there is present fever, with a rapid, wiry pulse, fear of death, thirst, etc.

Ars. Alb.—Restlessness; congestion; nausea; chilliness, alternating with heat, weakness, diarrhœa, etc.

Bell.—When the face is flushed, the patient complains of bearing down pains, painful straining in micturition, dull headache, etc.

Bryonia.—Worse towards evening; sharp pains in the pelvis, or other parts of the body; worse on motion.

Bovista.—Ill-humor; drowsiness; thick, slimy leucorrhœa, etc.

Cal. Carb.—Great prostration in chronic cases; leucorrhœa like milk; feet cold and damp.

Merc. cor.—Worse at night; prostration and dryness of the mouth, with thirst; leucorrhœa greenish.

Phytolac. dec.—In chronic cases where there is glandular enlargement in scrofulous patients.

Sepia.—Profuse milky leucorrhœa, with irritation of the mucous membranes generally.

Sulph.—The discharge from the vagina is offensive.

CHAPTER XX.

ENDO-METRITIS.

ENDO-METRITIS indicates an inflammation of the lining membrane of the entire uterus, and in conjunction with it inflammation of the sub-mucous tissue of the organ generally. *Endo-metritis* may be acute or chronic. It produces a more profound impression upon the general system than *endo-cervicitis.*

ENDO-METRITIS, with some metritis, is perhaps the most common disease of women to-day. I may safely say they come under the care of the general practitioner almost daily. I will not say they are always recognized; on the contrary, chronic endo-metritis is very often overlooked. It produces so many sympathetic affections, that they are very often mistaken for the disease, and the real ailment is lost sight of. The inflammation may be confined to the neck of the uterus, when it is termed endo-cervicitis, cervical metritis, or *cervical endo-metritis,* to distinguish it from *endo-metritis,* which indicates the affection of the fundus as well.

It may be impossible to diagnose a slight irritation of the peritoneal covering, but if the irritation of this membrane is considerable, it will extend so as to be easily diagnosed as *peri-metritis.* Inflammation probably most frequently commences in the mucous membrane, and extends to the sub-mucous cellular tissue, and then to the muscular, but this is hard to demonstrate. It may commence in the fibrous or peritoneal tissue.

The body of the uterus is most frequently the seat of the disease, causing engorgement of the vessels and consequent enlargement of the entire organ. In some instances the

neck seems to be primarily affected, and the inflammation then extends to the body, and, in some instances, the lining of the fundus of the uterus is alone affected.

Diagnosis.

Very many times we have vaginitis in connection with endo-metritis; hence, when we find vaginitis present, we must not rest satisfied till we are sure we have not endo-metritis, causing the vaginitis, from the irritating qualities of the discharge from the cervix. On making a digital examination we find the os enlarged, tender, patulous, with the mucous membrane covering the neck of a somewhat brighter color than natural. Tenderness is present on attempting to introduce the uterine sound. The sound will reveal to us some increase in size of the uterine cavity. Sometimes this increase of size is considerable ; in other cases, slight.

Hypertrophy.—The hypertrophy may be general, affecting the entire organ, or the cervix may be enlarged and the body remain normal in size. With this enlargement of the cervix we may have induration, the neck generally uneven, though sometimes smooth. Rarely we have induration with an atrophied condition of the uterus. The term hypertrophy is not applicable in some cases, especially where we have effusion of fibrinous material into the submucous tissue, giving rise to the soft, patulous feel, and which organizes after a time to produce the hardness mentioned as induration. (See Areolar Hyperplasia of the Uterus.)

In hypertrophy we have an enlargement of all the tissues of the organ, similar to the condition in sub-involution. Hypertrophy and induration are to be considered as results of chronic metritis, with endo-metritis.

Though we may have enlargement, in cases of acute or chronic metritis, the extreme tenderness of the organ, the suddenness of the attack and the accompanying fever, wiry pulse, etc., will clearly indicate the acute form. The sub-

acute or chronic endo-metritis, with metritis, presents some tenderness of the organ, but not as severe as in the acute variety. The history of the case will also throw some light on the diagnosis.

By introducing the index finger of one hand into the vagina till it touches the os uteri, and then pressing the other down on to the uterus from above in the lower hypogastric region, we may determine the amount of tenderness in the organ. The amount of the leucorrhœal discharge is not an index to the severity of the disease, as in cases which show the most tenderness we may have little discharge, and *vice versa*.

Color of the Discharge.—The thick, yellow discharge indicates some exfoliation of the cervical mucous membrane, unless it be in cases following after a miscarriage or labor, indicating a suppuration or sloughing of some small portion of retained placenta, or that the endometrium has been left raw and suppurating; or we may have decay of a polypus, causing this yellowish white suppuration. The thin, slimy, mucous discharge only indicates an excess of natural secretion of the mucous membrane, and will indicate very little trouble in the endometrium or cervix. In the healthy condition of the parts there should be no discharge from the vagina, except the menstrual fluid, or, in case of excitation of the sexual passion, when there is an increase of the vaginal mucus, which may flow away in considerable quantities during the continuation of the excitement.

Uterine Tenesmus—Bearing Down.—The patient suffering with endo-metritis will almost always suffer from a sense of weight and bearing down in the pelvis, and sometimes the pain is so intense as to simulate labor. In such cases of severe pain we have reason to suspect that there is some foreign growth in the uterus, either fibroid or polypoid, especially if the pains are intermittent. But the sense of weight and pressure is a common symptom of endo-metritis, in all cases.

This symptom is the more prominent if the patient stands much on the feet. Standing will produce more pain, ordinarily, than walking, as in standing the weight of the abdominal viscera rests more directly upon the uterus, and aids in depressing it as well as to produce the sense of soreness. In walking, the body is thrown from side to side alternately, so that the weight of the bowels rests more on the brim of the pelvis, and, consequently, produces less suffering than standing. It is often the case that even a small amount of walking can not be endured; but the patient has to lie in the recumbent posture, with the hips elevated.

It must not be thought that these cases require ordinary treatment for prolapse or other displacements. Generally we will detect little prolapse while the patient is in the recumbent position; still, while she is standing, the uterus will be usually lower than normal in the pelvis; but this will be rectified as the inflammation subsides and the engorgement and weight are removed. The amount of pain complained of is owing as much, or more, to tenderness as to displacement. The pain produced in some cases seems out of all proportion to the severity of the case as revealed by physical examination, and is to be explained in the more highly sensitive nervous organizations of some women than others.

Pain in the Loins.—Pain in the loins is also a distressing symptom in some cases. This is caused by the weight of the uterus and its consequent displacement, dragging down the ovaries, straining the broad ligaments, or from sympathetic or continuous inflammation of the ovaries.

Pain in the Sacral or Lumbar Region.—Pain in the sacral or lumbar regions, or at the extremity of the coccyx, is another very constant symptom of *endo-metritis*. The pain is sometimes at the upper extremity of the sacrum, sometimes in the locality of its articulation with the coccyx. It sometimes causes great discomfort in sitting. There is, in some instances, tenderness in these regions, as well as pain,

but in other cases great pain is complained of, with no tenderness on pressure.

We must remember that hemorrhoids, prolapse, or inflammation of the rectum may produce pains similar to those just described. Some writers assert that the rectal difficulties usually produce more pain on the left side of the sacrum, as well as the left natis and hip. I have not taken notice of this being so; still, it is well to bear in mind that this has been noted by others.

Pain during Menstruation.—In cases of acute endo-metritis we will usually have pain during menstruation; at least, at its commencement; while in chronic endo-metritis we usually have little severe pain, though the patient complains of more soreness than usual, and the sympathetic pains in the back, loins, and other parts of the body are increased. In cases of endo-metritis in women who have never born children we very often have severe dysmenorrhœa, owing to the formation of a false membrane, which requires strong uterine contractions to discharge, in some cases; in others, owing to the narrowing of the internal os from the inflammation.

I think I may safely say there is some degree of endo-metritis in most cases of dysmenorrhœa; so that dysmenorrhœa is one symptom of endo-metritis, especially in those who have not been pregnant. These pains are of a crampy character, and simulate colic—in fact, are often termed uterine colic.

Menorrhagia or Hemorrhage.—Increase of the menstrual flow is common in endo-metritis in women who have been mothers. It may be that the flow lasts too long, or comes on between the regular periods, so as to completely confuse the patient in her reckoning as to the regular menstrual period. This is particularly the case when the neck of the uterus is the seat of most of the inflammation. Sometimes partial or complete amenorrhœa results from endo-metritis,

arising from the general debility induced, as well as the induration of the endometrium from chronic inflammation.

Amenorrhœa sometimes results from chronic endo-metritis, I fear, from the nature of the treatment used—I mean the use of caustics and strong intra-uterine injections. A sort of cicatrix of the mucous membrane is produced over a whole or a part of the intra-uterine surface, through which the menstrual fluid can not pass, and we have amenorrhœa as a result.

Effects on Conception.—While sterility is as likely to result from endo-metritis as it is from endo-cervicitis, pregnancy will sometimes occur in mild cases of the disease, and, in rare instances, progress to full term of gestation.

During the growth of the fœtus, and the consequent enlargement of the uterus to contain and nourish it, we will have, very often, much complaint of soreness, tenderness, and often threatened miscarriage from the irritable condition of the uterus, producing a tendency to contract and expel its contents; and very often premature labor results, in spite of every precaution we may use. But, in the great majority of cases, barrenness is a condition in these cases; but they may occasionally become fertile after the endo-metritis is cured.

Generally, after a miscarriage or labor, there is a great tendency to acute inflammation; therefore, the physician should be particularly careful to have the patient remain in bed longer than usual, and see to it that complete involution takes place if possible.

Mental derangements, loss of appetite, indigestion, palpitation of the heart, headache, gastralgia, heartburn, etc., may result from, and be symptomatic of, *endo-metritis*, as well as other uterine diseases; but as they are not peculiar to any special difficulty or disease of the uterus, the totality of the symptoms must decide the diagnosis. Differential diagnosis, as well as special, must depend upon the physical examina-

tion mostly, in conjunction with the history of the case and the general symptoms.

Etiology.

The causes which led to the establishment of endo-metritis are similar to those producing endo-cervicitis. Cold taken at the menstrual period is probably the most frequent cause in the unmarried. Masturbation, also, is a cause of this disease by producing an excited circulation in the parts, by arousing the sexual passion frequently. Sub-involution of the uterus, in conjunction with cold, develops the disease. An imperfectly detached placenta, abortion, means to prevent pregnancy, overwork, displacements of the uterus, and uterine tumors, all tend to cause *endo-metritis*. Excessive sexual intercourse and fissures of the cervix from lacerations may be also mentioned as causing this disease.

Prognosis.

The prognosis of endo-metritis should be guarded. The length of time it will take to cure a given case no man can tell. One case may progress to recovery rapidly, while another will seem so obstinate as to discourage both patient and physician.

Very much depends upon the attention the patient will give to the case, and how persistent she will be in the treatment; and also very much depends upon the possibility of preventing the continuous action of any exciting cause of the disease. Many times a few weeks of treatment suffices to cure very bad cases, while again, it takes several months; and in other cases we are doomed to failure. Still, I have had a fortunate and happy experience in the cure of this disease, which I attribute to having carefully studied each case in respect to diagnosing it and its cause, in each instance, together with some patience in pursuing treatment. The physician who hurries through with his patients either

because he is very busy or because he desires to appear so, need not expect to be very successful in this disease.

The engorgement of the vessels of the uterus, in this disease, it will take time to remove, and, in case of actual hypertrophy of the organ, we must expect to have some enlargement remaining, after treatment; though we may get rid of the symptoms complained of, a physical examination will reveal in some cases that we have still some enlargement.

In the sterile patient we can not positively promise a cure, as so much depends on other conditions besides the healthy condition of the uterus in securing conception. We must remember that granulations in the cervix, vegetations of the endometrium, fibroid tumors of the uterus, polypi, hydatids, etc., may result from this condition, and the case may get worse under treatment, or, rather, in spite of treatment, in some few cases, which should guard us in prognosis.

I am of the opinion that the gravity of the disease is not appreciated by the people or the profession. Patients with this disease are often sadly neglected by the physician and friends. A cause of this is doubtless to be found in the fact that they are able to go about, and often do so when enduring extreme suffering, rather than complain, partly from a sense of modesty, and partly from pride (as most women prefer that it should not be known that they have any disease or weakness of the generative organs). They accordingly suffer on, hoping that they will come all right in time, or using such domestic remedies as they have heard mentioned as useful. Or they call a physician, and enumerate some of their symptoms, but decline to have a thorough examination of their cases made, and they, consequently, get poor, very poor treatment. Or they submit to examination and treatment by some of those of the Bennett faith, who use caustics as heroically as even Dr. Byford could desire, "having that nerve" which he mentions as necessary

to do so "persistently and thoroughly;" and, as they find their time, money, and patience exhausted without receiving benefit, they get very much discouraged. Can we blame them?

Cases which have passed through such an experience we can safely decline to treat; or, at least, we will do well to be careful to promise little. But with those who have not been subjected to the heroic, though mistaken treatment, we may expect rapid improvement in the majority of cases, if we use proper treatment, and have the patience to study each case carefully, and give it the attention it demands; and we can, at the same time, have the co-operation of the patient.

Very much depends on her co-operation. Most patients, with this disease, will call at the physician's office, and very much depends upon their attention to the matter sufficiently to accomplish a cure. They will often cease treatment when the symptoms somewhat subside, concluding that they will soon be well any way. Such cases will not generally recover, but will soon be as bad as ever, if not worse; and, filled with disgust at the failure of finding herself cured, she either neglects herself till she gets very bad, or consults another doctor, or goes off to some water cure, or goes to taking electrical baths under the direction of some dishonest traveling mountebank who advertises largely.

This, though true, is somewhat of a sad picture in the matter of prognosis. These trials we all have, or shall meet, and we can not well know in the commencement of the treatment of any case whether it will give us much trouble or not. I do not think these cases have a very great tendency to recover when left to themselves. The tendency is to increase of the difficulty instead of recovery.

Treatment.

In treatment the physician should consider that he has an inflammation to treat; not only that, but that the inflammation is in an important organ of the body, and that this

organ produces, when diseased, an immense amount of sympathetic irritation in various other parts of the body. He should also bear in mind that the physician's duty is to be cautious that in trying to cure he does not harm.

This feeling has arisen so high in some, that they depend entirely upon remedies administered by the stomach to cure this disease, as well as all others. Now, while the physician should be cautious to do no harm, he is not guiltless who leaves undone those things which he should do, and thereby allows his patient to suffer, and perhaps die, on account of his prejudice against means used by some, because they have abused them. We must be brave enough to not be extremists, to use judgment in the adaptation of remedial measures, and decided and constant in their uses.

Some practitioners of both schools are in the habit of applying *Arg. nit.* in solid form to the mucous surface of the cervix and neck of the uterus, and of introducing into the cervix and even to the fundus of the cavity of the uterus fuming *Nitric acid* for the cure of this disease. They may speak of the case as one of ulceration all they please. The condition is one of inflammation with the exfoliation of the mucous membrane, and is, in its entirety, the disease now under consideration.

With this class I can agree no better than with those who would use no local treatment; and while I deprecate and warn you against caustic treatment, I am in favor of and use successfully mild, soothing treatment, as a rule, by local application, and in some very chronic cases gentle stimulating treatment; still great reliance is to be placed on remedies properly selected in conjunction with this treatment in chronic cases, and in acute cases remedies may be all that are required.

Treatment of Acute Endo-metritis.

In case of an acute attack of endo-metritis a warm sitz bath, together with a warm foot bath, or the full bath, may be at

once prescribed, following the bath by free, brisk, dry rubbing of the entire surface. Place the patient in bed, with plenty of cover, and administer *Aconite*. Give it every half hour or hour till a reasonable amount of diaphoresis is induced, then only once in three or four hours; direct the patient to be rubbed with a dry cloth every hour or two, to take off from the skin the perspiration which is thrown off. After the free perspiration is established, if there is much bearing down pain, give *Bell*. If there is alternating heat and cold, hot flashes, etc., without the bearing down pain, give *Ars*. Let the patient drink often of moderately cold water; no tea, coffee, or opiates. Some homœopathic physicians seem to lose their sense in these acute cases, and give morphia like an allopath or an eclectic. It is not necessary. It is not scientific. It is not good for the patient. Neither can we give hypodermic injections of morphia with any more reason.

While I would prefer to simply state the treatment I recommend and practice, I fear silence in this matter might lead some young practitioner to the use of objectionable methods and means, as too much sanction has been given these things in old school books and among some practitioners calling themselves homœopathic.

The diet should be gruel or other bland, unstimulating food. The recumbent posture should be maintained. Following this plan, we will seldom fail, in a few days, to entirely cure the case, unless it be one of acute inflammation, supervening upon a chronic one, in which case we may have remaining some chronic inflammation, which will require a somewhat different treatment.

Treatment of Chronic Endo-metritis.

The treatment of chronic endo-metritis tests the capacity, tact, patience, and perseverance of the physician to the utmost. The patient is usually about the house, and able to ride or walk some, but suffers considerable pain in this exer-

cise. When we get such cases a little relieved they are very apt, by want of care or too much exercise, to cause a relapse, or they take cold, and a severe inflammation is aroused, and the patient feels much discouraged.

Now, with a full appreciation of the obstacles he may expect to encounter the student will be prepared to act decisively. He will not feel like promising a cure in two or three weeks. It is better not to promise what we are doubtful of performing. We thereby lose reputation in the estimation of our patients. It is best in the commencement of the treatment of these cases to tell the patient it will take considerable time to cure her; but assure her that, if she has perseverance and patience, and will try to follow your directions, she may expect to get well. Explain to her that the inflammation has to be subdued and the enlargement decreased before she can consider herself well, no matter how well she may feel. If it was a chronic enlargement of the knee or thyroid gland she would expect that it would take time to cure it. Do n't deceive yourself and the patient by asserting she is very much better or almost well about the second or third time you see her. Such encouragement is bound to end in bitter disappointment.

The first application I would ordinarily make to a case of chronic endo-metritis is *Bell. ointment*, applied to the vaginal portion of the neck of the uterus with the finger, and, with the uterine applicator, to the internal surface of the uterus if there was not great tenderness. If there was much tenderness I would only pass a little of the ointment into the cervix; or, we may use the medicated suppository, made with *Bell.*, afterwards using *Hydrastis;* or, we may sometimes obtain great benefit from the introduction into the uterine cavity of rolls of cotton, made in the shape of a sponge tent, with a piece of wire to stiffen it, to which is attached a string for its removal, having it saturated with *Glycerine*, or *Glycerine* and *Solu. Iodine*, or *Glycerine* and *Tr.*

Hydrastis, allowing them to remain twenty-four hours, and then applying a fresh one. Generally it is best to introduce into the vagina a ball of cotton to press against this uterine tent and prevent its slipping. It is well to have them prepared of different sizes, and to use as large a one as it is possible to introduce, so as to make some pressure upon the capillary circulation.

Much good is accomplished with the ordinary sponge tent, moistened partially with *Glycerine*. In fact, they may be, in some instances, more efficient than cotton, but, as they are more expensive, and sometimes dilate the cervix more than necessary, and press the fibers of the sponge so firmly into the tissues of the uterus as to cause some laceration in removing them, I do not recommend them in all cases, but only in those where the neck is small, or in cases which are very obstinate.

Sometimes the sea-tangle tent does very well. I would place some *Belladonna ointment* on the end of the tent before introducing it, so as to aid dilation, and tend to prevent inflammation. In using the sponge tents, I prefer to remove them in ten or twelve hours.

An additional advantage of the tent is that it gives us access to the body of the uterus, and it is often for lack of getting remedies up to the fundus that we fail. Hence the advantage in this direction in using the sponge tent in obstinate cases, as well as the double advantage I spoke of before of compression of the capillaries of the cervix, and the advantageous application of the remedies with the uterine applicator. (See Fig. No. 68, page 715.)

In connection with this plan of treatment we may paint the neck of the uterus with *Solu. Iodine* (five grs. *Iod.* to the ounce of water, combined with fifteen grs. *Potass. iodid.*), using a camel's-hair pencil, first wiping away all mucous secretion from the cervix before making the application; or we may apply a wad of cotton saturated with *Glycerine* and

Iodine, 1 ℥ of the former to 1 ʒ of *Solu. Iod.*, made as before mentioned. *Vaseline* should be freely applied to the vagina, daily, in these cases, to protect the parts from acrid discharges from the uterus, and also to keep the vagina in condition that we may use the treatment desired for the uterus.

The patient should use, daily, vaginal injections of tepid water and castile-soap, to cleanse the parts and to wash out all secretions.

At about the menstrual periods all treatment should cease till it is over several days.

Warm, wet compresses, constantly worn over the hypogastric region, are of much service if care is exercised to cover them with dry flannel (using cotton for the compress), and binding all tightly with a bandage to hold it on and to maintain its warmth; for if it is allowed to be loose it will get cold and be injurious. But, with care in its application, I consider the water compress of great value.

Another means of great value, as I believe, is the abdominal supporter, to lift the weight of the intestines off from the uterus, and keep them from irritating it when in the erect posture. If we could keep these patients in bed we would have no need of the abdominal supporter; but we can not do this; and to accomplish the holding up of the abdomen with proper support calls for ingenuity and patience sometimes. The support must be at the lower part of the abdomen. Any tightness about the center of the abdomen tends to press downwards as much as upwards, and does more harm than good. I have recently had Messrs. Wocher & Sons, of Cincinnati, make for me an improved London supporter (see Plate XII), which answers the purpose admirably. With it we get the lower elastic strap, lower over the hip, and get tightness across the extreme lower portion of the abdomen. Leaving the upper strap a little loose, we hold up the abdomen like the hands were applied there, trying to lift up the bowels. By this means we often get prompt relief to many

of the sympathetic symptoms, and we take from the womb a source of irritation. This band should only be worn when in the erect posture. When lying down, remove it. The silk elastic band or supporter (see Plate XII) does well in case of very pendulous abdomens. Without the use of some kind of abdominal support we will be greatly hindered in our treatment. I would not attempt to cure some of these cases without it.

Diet.—It is important to have a generous diet given these patients—that which is nourishing, but not stimulating. Beef-tea, soft-boiled eggs, milk, soup, etc., should be used. Tea, coffee, beer, and wine should be avoided, as well as spices and all highly seasoned food. As a sensitive stomach and bad digestion are some of the sympathetic affections of this disease, we need to exercise much prudence in matters of diet, as upon the proper nourishment of the body much depends. It is of vast importance that food be taken that can be assimilated. Food difficult of digestion is worse than useless, except in some exceptional cases, where the peculiar idiosyncrasies of the patient may tolerate it.

Bathing.—Some ladies bathe too much, others not enough. Some moderation in bathing is as good as in other things. The full bath daily, in Winter, I consider too much, though in the heat of Summer, where one perspires very much, it may be allowed. The bath should be tepid, not warm. After a few moments in the bath the patient should be enveloped in a dry sheet, and briskly rubbed by assistants till a full glow of the surface is established. Such a bath in cool weather once a week I consider ample. The sitz bath might be taken daily in some cases of more than usual severity.

Attention to the Bowels.—The bowels should not be allowed to remain constipated. Use enemæ of tepid water and soap, and if no evacuation of fecal matter is produced, follow the evacuation of this enema with cold water and soap immediately, and we will produce alvine discharges with

much certainty. Attend to this each morning, with regularity. The patient should have explicit directions on this point. The regular habit is to be encouraged. It is well to throw into the bowel a small amount of water, and let it remain after the evacuation. Water allowed to remain in the rectum tends to allay irritation, and the feverish condition usually present in this class of cases.

Clothing.—Clothing should be worn suspended from the shoulders, and be sufficiently loose about the waist to be comfortable. It should be sufficient to maintain a healthy temperature of the body. The feet and limbs should be kept especially warm with warm clothing. Do not neglect to keep the feet dry and warm.

Sexual Congress.—Sexual congress better be entirely prohibited. Failure to give these directions often may cause the failure of treatment. Where there is any great disposition on the part of the patient to indulge in this way remedies to subdue the passion better be given. This, however, will seldom be necessary, as in most cases the act causes pain, and is avoided if possible; but on the partial return of health the prohibition may be necessary. I think it well for the physician to fully explain the case to the husband at first, and thereby obtain some aid from him in carrying out proper treatment, as well as sanitary regulations.

Medicated Vaginal Injections.—In endo-metritis I most emphatically say, let them alone. Pure water or soap and water to cleanse the vagina is all that is needed in the way of a wash. A vaginal douche of warm water may sometimes be a comfort and be proper after a walk, or extra fatigue, causing some pain. The patient should sit over a chamber, and sitting with the bowl of water before her, gently throw in the warm water in as steady a stream as possible. It will of course pass away at once into the chamber. The steady pumping in of warm water for ten or fifteen minutes,

sometimes allays the irritation, temporarily, at least, to a very great extent.

Caustics.—I must speak of caustics to enter my protest against their use—I hope no student of mine will ever be inclined to use them, more than he would venesection. Both are recommended in some old-school books. One is as good as the other — both are, in my opinion, injurious. Blood-letting has gone out of date, but caustics are in their glory. Let us hope the end of their use draws nigh. I used them over ten years, and I know whereof I speak. Many cases of sterility, of partial and complete atresia of the cervix, atrophy of the organ, as well as innumerable chronic cases and thousands of untimely deaths, may be traced to their use, either directly or indirectly.

I am aware I am speaking strongly, but I speak as I feel. Those who use them are justified by abundant high authority; but, nevertheless, I raise my humble protest.

Iodine Used with the Hypodermic Syringe.—In chronic enlargement of the uterus in these cases it is sometimes efficacious to inject into the tissues of the cervix a solution of *Iodine*, from two to five grains to the ounce, by means of a syringe; some like the ordinary hypodermic. (See Fig. No. 18, page 171.)

The speculum is an aid in its use, and the tubes are long enough to make its use convenient. Inject at three places at one operation; repeat in five or six days—three operations are sufficient in some cases to produce rapid decrease in the size of organ. Dr. J. M. Bennett,* of Liverpool, reports many cures with this treatment after all other means had failed.

Remedies.

Perhaps no remedy is so frequently indicated as *Nux. Arsenicum, Sepia, Puls., Bell., Bry., Ars. iodid., Merc. iodid.,*

* Dublin Journal of Medical Sciences.

Ignat., *Cubebs*, *Canthar.*, *China*, and *Sulph.*, are of service according to their special adaptability in each particular case.

Those patients of broken down constitution, with weak nerves, require *Nux*, *Ars.*, *China.*

If there is a tendency to glandular swellings or eruptions of the skin, *Rhus*, *Phytolac. dec.*, *Ars.*, or *Merc. cor.*, are most indicated.

Where cerebral symptoms are prominent, characterized by severe attacks of headache, *Ignatia* or *Iris vers.*

If the headache is complicated with nausea, *Ars.*, *Ipecac*, or *Puls.*

Where the head feels sore like a boil inside, or where we have much tendency to stupor, *Bell.* or *Opi.*

If the pain in the head is sharp, darting, lancinating, *Ac.* or *Bry.*

For renal complications with mucus in the urine, *Can. ind.*, *Cal. carb.*, *Canthar.*, or *Cubebs.*

For indurations and enlargement, *Merc. iodid.*, *Phytolac.*, *Bell.*

For leucorrhœa, *Puls.*, *Sepia*, *Sulph.*, *China.*

For palpitation, *Dig.*, *Ignat.*, *Verat. viride.*

Secale, *Nux*, or *Ars.*, in case of debility with diarrhœa, and a tendency to anasarca.

We should look out for displacements in these cases. Not only the partial prolapse, but retro-flexion or ante-flexion especially. I take it for granted that no practitioner would overlook a case of retro-version or ante-version, as they are readily recognized; but some cases of flexions are rather hard to detect; in fact, I may say, impossible, except with the aid of the uterine sound.

We will not meet with much success in the treatment of any form of inflammation of the uterus or appendages if flexions exist, unless we first rectify the flexion; hence, it is well to lose no time in determining whether or not there is a flexion in the case.

A failure to do this is a very frequent cause of the want of success in the treatment of these cases. I feel positive I might relate numerous cases in illustration which have readily yielded to treatment after the flexion was rectified, which had been under good treatment otherwise for years by eminent physicians who had overlooked the flexion.

Pessaries.—Pessaries must be avoided in these cases, if possible, though I would use them if I failed to rectify the flexion or version without them. It is very seldom of late years that I have any occasion to use a pessary in any case; and I especially avoid them in any inflammation of the uterus. The taking off of the weight of the bowels by means of a suitable abdominal supporter, as before mentioned, and occasionally introducing a medicated ball of cotton into the vagina after I have placed the womb *in situ*, I almost always find sufficient to obtain a permanent relief from the flexion or version.

It is astonishing, in some instances, how quickly the inflammation subsides and the discharge ceases when the version or flexion is rectified. I will relate a case or two in exemplification, though, if time permitted, I might relate cases for days somewhat similar.

In October, 1877, Mrs. B., aged about thirty-three years, came to me from one hundred and thirty miles in the interior of the State. Native of Ohio; married twelve years; about nine years since was delivered of a seven-months still-born child; no pregnancy since. For most of the time since her confinement, she has had a leucorrhœal discharge, which for three or four years has been extremely bad smelling. Great tenderness and soreness had been suffered for seven or eight years, so much so as to make it almost impossible to endure copulation; bowels constipated, some cough, general emaciation, no appetite, bad digestion, some nausea, catamenia very profuse and painful, lasting about ten days, and returning in ten or twelve days. Life was almost a burden to her; she

could not perform any labor, and suffered extreme backache and headache.

She had been treated by five or six different physicians of good ability with no relief, they having finally diagnosed the case to be cancerous. On attempting to make an examination I found the vagina so tender I desisted, and applied *Bell. ointment* to it three times a day for two days, when I found I could proceed to make an examination of the uterus without causing much pain. On introducing the finger I found the os in its normal position, except somewhat lower in the pelvis than is natural, hard, and enlarged to three times the normal size. The sound revealed a retro-flexion, and showed the uterus to measure four inches in length. I applied my abdominal supporter (see Plate XII), and continued the *Bell. ointment* in vagina, and prescribed *Nux* 3^{x} every three hours. On the third day following I replaced the uterus with Elliott's uterine elevator (see Plate XIV), patient on knees, with hips elevated more than the shoulders. Let her lie upon her side twenty-four hours, and allowed her to get up and go about, still wearing the abdominal supporter when up. Applied *Solu. iodine* with brush and applicator to the cervix uteri twice a week, and continued *Bell. ointment* and prescription of *Nux* 3^{x}, directed the vagina to be cleansed with soap and tepid water, morning and evening, with good nourishing diet.

Within four weeks all the discharge had ceased; very slight tenderness remained in the fundus, none in the vagina or neck of the uterus; copulation not painful; flesh increasing rapidly; only very slight pain in back or head; menstruation less profuse, and lasted but five days. Continued treatment to reduce size of uterus for two months longer, and discharged the case, she says, in perfect health. Eight months later reported still well.

Case Second.—Mrs. L., of Cincinnati, native of New York, aged thirty-seven years, of slight build, light com-

plexion, nervous temperament, consulted me, July 6, 1878. Found retro-flexion of uterus, with endo-metritis. She complained of partial loss of eyesight in both eyes. (She had consulted Prof. Wilson, a celebrated oculist of this city, now of Ann Arbor, Michigan, who had diagnosed the cause of her trouble to be reflex nerve irritation from uterine disease, and had sent her to me for treatment.) She stated that the eyes had been troubling her for over three years, being unable to read or sew. The eye looked well, except weak, with a sort of stare.

Her history was a sad one of having been treated almost constantly for twelve years, during three of which she had had the constant care of Prof. Sims, of New York City, whom she considered the most eminent gynæcologist in America. He had used tents, scarification, etc.; others had used caustics *ad infinitum*. Still she got no better. Her menstruation had never been free, pain in her back and head was constant, dyspepsia her constant trouble. She had tried hygienic and water-cure treatment, was troubled much with leucorrhœa and constipation, great aversion to sexual connection, which was very painful, her husband informed me.

I commenced the treatment of this case with much distrust of my ability to relieve her. Her long illness, incapacitating her for any exercise without severe pain, taken in connection with the eminent skill she had employed, was certainly unpromising; but I concluded to make an attempt. I at once applied my abdominal supporter (London), and replaced the retroflexed uterus, gave *Sepia*, *Nux*, and *China* singly, a few days each, then only *Can. ind.* till she was well (six months from commencement of treatment).

I never had to replace the uterus again. It remained all right. The leucorrhœa ceased, the tenderness left, her digestion became good, her bowels regular, her menses more profuse, lasting three days; her eyesight became stronger, so that in November she worked a beautiful pair of slippers, and

gave me, besides paying me a good fee in cash. Now, about two years since I commenced treatment, she is still well, reads, sews, and walks as far as any lady. I have not treated her any for about eighteen months. She is rosy-looking and gaining flesh; her menstruation comes with regularity and quite freely. She has sent me many patients the past six months, including two from New York City, who have just arrived (old friends of hers in New York).

I relate these cases from my note-book informally, to impress the student with the importance of correct diagnosis as to the cause of the disease as well as its nomenclature. It is much better to make a mistake in naming a disease than in discovering its pathology and etiology. These ladies, who are now in health, might doubtless have been more easily restored years before, and saved years of suffering, had their ailment been correctly diagnosed. In both cases their sympathetic symptoms had been mistaken for the real disease by several physicians.

CHAPTER XXI.

LEUCORRHŒA—WHITES.

This term signifies an unnatural discharge other than blood from the female genital organs. It is not a disease in itself, but really a symptom only of inflammatory action in the vagina, or uterus. In the healthy woman there is a mucous secretion in the vagina, for the lubrication of the parts, which is oily in its nature; but in disease we have various discharges, differing in appearance and consistency, which are termed leucorrhœal. Patients complain of a leucorrhœal discharge, and the physician may often prescribe for it, without explanation of its true nature.

The term "whites" is sometimes used to designate this complaint. It may affect girls or women of any age; even infants are sometimes affected with it. It is sometimes easily cured, and again it is very obstinate, owing to the various causes upon which it is dependent.

The discharge may be thin or thick, and white or yellow. The yellow discharge indicates the uterine origin of the difficulty. The white and watery discharge comes from the vaginal mucous membrane. It may be catarrhal in its nature, and affect at once the lining membrane of the vagina, cervix and endometrium simultaneously, in which case we have a varied appearance of the discharge, sometimes thick, sometimes thin, again some yellow matter mixed with the thin white discharge, and so on.

Diagnosis.

It is not difficult to diagnose that we have or have not leucorrhœa, but it is not always so easy to make out its

cause. It is true, it must be from the irritation in the vagina or uterus; but the cause of this irritation is the thing to find out.

Ordinarily we will take the patient's description of the discharge and her symptoms to guide us in the selection of remedies; but in case we are not soon successful in curing it, we will do well to investigate carefully for ourselves as to the cause of the ailment. These causes need not be enumerated here, as the student may turn to the chapters on endo-cervicitis, endo-metritis, vaginitis, and metritis, and read the causes there enumerated. Hence diagnosis and etiology go hand in hand in this difficulty. The patient says she has whites or leucorrhœa. Your next thought should be, What causes it?

The success in treatment will largely be dependent upon close discrimination as to its nature and etiology. It must be borne in mind that the inflammation may be chronic, or sub-acute. It may be so mild as to be scarcely recognized as an inflammation at all—being confined mostly to the glandular structure of the vagina, which may pour out an abundant discharge, though there may be no tenderness or heat observable in the parts. In these cases the vagina will be found loose and flabby.

The yellow leucorrhœa indicates exfoliation of the epithelial layer of mucous membrane, from some preceding active inflammation, and that pus is being secreted on this denuded surface; and this condition may be expected to be found either upon the cervix or in the interior of the uterus. The white albuminous discharge from the os is simply an excess of natural secretion in the uterus, showing some undue congestion of the endometrium, but may pass away without treatment in a very short time. The discharge of a large amount of pus at one gush, of course, will indicate the formation and rupture of an abscess.

Treatment.

Some recent catarrhal cases will be speedily cured with *Aconite*, followed in three or four days with *Sepia;* and if this is not sufficient give *Cal. carb.*, frequently bathe the parts with castile-soap and water. Hip-baths are also of service. As the discharge tends to debility, a good nourishing diet is necessary. If the patient is very much prostrated from chronic leucorrhœa, *China*, *Ars.*, *Merc.*, *Nux*, or *Puls.* may be indicated. After the vagina and labia are well cleansed, it is well to smear the parts with *Vaseline*, and, in case of children and infants, place a soft cotton cloth, smeared with *Vaseline*, between the labia, to prevent adhesions, and, in some instances, it is well to gently press a small bit of the cloth, so oiled, up into the vagina, to prevent occlusion.

Astringent washes are not needed. Sometimes the local application of a little *Glycerine* and *Hydrastis* is, however, beneficial. In the form I mentioned as being characterized by the relaxed, flabby condition of the vagina, the stimulating effect of dilute *Citrine ointment*, applied to the vagina once a day, may aid us in making a rapid cure. Try to remove the exciting cause of the difficulty. Never rest satisfied without doing this, if you can ascertain what it is.

There is in some cases of suppression of the catamenia a leucorrhœal discharge which seems to take the place of the regular menses, lasting about as long, or a little longer, than the menses usually did. This form of discharge is not really leucorrhœal, but a conservator of health. It is really a perverted or incomplete menstruation, and calls for *Puls.*, *Macrotis*, *Cocculus*, etc., not to suppress it, but to cause the more free flow, which would probably be healthy menstrual fluid. So we are constantly reminded of the need of taking into account the whole of any given case, and not let one symptom obscure our vision in regard to others, or the conditions producing them.

Remedies in Leucorrhœa, with Special Indications for their Use.

In addition to *Aconite, Sepia, Cal. carb., China, Ars., Merc., Nux, Puls.*, etc., which I have named, the following remedies are of service in some cases of leucorrhœa, given when indicated by the totality of the symptoms, which should be carefully studied in works on therapeutics. The leucorrhœa may be kept up by reason of diseases somewhat remote from the vagina, and, consequently, there may be indications for remedies ordinarily only demanded in other diseases. These remedies are *Bovista, Graphites, Kreosotum, Conium, Muriat. acid. Nit. ac., Platina, Macrotin, Podophyllum, Lyc., Sulph., Carbo veg., Phos., Zinc, Canthar., Bryonia, Sabina, Sil., Senega, Stann., Ferrum, Can. ind., Thuja, Hepar*, etc.

Dr. Leadam* gives, in Acute Leucorrhœa, *Acon., Amm. c., Borax, Cal. c., Carb. v., Con., Kali c., Phos., Puls., Plat., Sab., Sep., Sulph. ac.*

In Chronic Leucorrhœa.—*Alum, Amm. c., Ars., Carb. a., Carb. v., Caust., Canth., China, Cham., Con., Ign., Kali c., Kreos., Lach., Lyc., Merc., Mez., Mag. c., Nat. m., Nit. ac., Phos., Puls., Ruta, Sil., Sulph., Sulph. ac., Stan., Zinc.*

When the Discharge is Fetid.—*China, Kreos., Nat. m., Nit. ac., Nux v., Sabina, Sep.*

For Yellow Leucorrhœa.—*Aconite, Alum., Ars., Bov., Carb. an., Carb. v., Cham., Kali, Kreos., Lac., Natr. m., Nux v., Phos. ac., Sabina, Sep., Sulph.*

For Brown Leucorrhœa.—*Ammon. mur., Nit. ac.*

For Green Leucorrhœa.—*Bov., Carb. v., Merc., Puls., Sep.*

For Watery Leucorrhœa.—*Amm., Ant. cru., Ant. tart., Carb. an., Carb. v., Cham., Chin., Graph., Kreos., Mag., Merc., Mez., Nitr. ac., Puls., Sep., Sil., Sulph.*

For Thick Leucorrhœa.—*Ambr., Ars., Carb. veg., Magn. m., Natr. m., Puls., Sabina, Sepia, Zinc.*

For Milky Leucorrhœa.—*Amm., Calc., Carb. veg., Can.,*

* "Diseases of Women," pp. 46, 47.

Ferrum, Graph., Kreos., Lyc., Nat. mur., Phos., Puls., Sabina, Sep., Sil., Sulph., Sulph. ac.

For Bloody Leucorrhœa.—*Alum., Ars., Canth., Carb. veg., China, Cocc., Con., Lyc., Sep., Sil., Sulph. ac.*

For Mucous Leucorrhœa.—*Alum., Ambr., Amm. m., Ars., Bell., Bor., Bov., Bry., Calc., Canth., Carb. an., Carb. v., Cocc., Con., Ferr., Graph., Guiac., Kreos., Magn., Merc., Mezer., Natr. m., Nitr., Nitr. ac., N. vom., Petr., Phos., Plumb., Puls., Sabina, Sass., Seneg., Sep., Stann., Sulph., Sulph. ac., Thuja, Zinc.*

For Leucorrhœa with Burning.—*Amm., Ars., Bor., Calc., Canth., Carb. an., Con., Kali, Kreos., Puls., Sulph. ac.*

For Leucorrhœa with Itching.—*Alum., Anac., Ars., Calc., Chin., Ferr., Kali, Kreos., Merc., Phos. ac., Sabina, Sep.*

For Corrosive Leucorrhœa.—*Alum., Amm., Ant. c., Ars., Bov., Calc., Cann., Canth., Carb. an., Carb. v., Cham., China, Con., Ferr. Hep., Ign., Iod., Kali, Kreos., Lyc., Magn., Magn. m., Merc., Mez., Natr. m., Nitr. ac., Phosph., Ph. ac., Puls., Ranun. bulb., Ruta, Sep., Sil., Sulph., Sulph. ac., Thuja.*

Aconite is indicated when leucorrhœa is complicated with great timidity, especially after a fright; fear of approaching death; inconsolable anxiety; predicts the day of death; excessive restlessness; vertigo, with nausea and vanishing of sight; burning headache, as if the brain were agitated by boiling water; scalp sensitive to the touch.

Ars. Alb.—"The leading feature of this remedy is the nervous restlessness, with rapid emaciation and thirst;" is sad and tearful; head confused, dizzy, stupefied; face has a cachectic look; sunken; covered with cold sweat; is expressive of great mental agony; drinks often, but little at a time; loathing of food; leucorrhœa profuse, yellow, thick, corroding.

Cal. Carb.—Rush of blood to the head; leucorrhœa like milk; ravenous hunger or complete loss of appetite; feet feel cold and damp; great weariness; not able to walk; profuse sweat on slightest exertion; sweating of the palms of the hands.

China.—The key-note symptoms of this remedy are prostration, with neither thirst nor hunger; ringing in the ears; taste flat, insipid, slimy, and bitter; leucorrhœa, instead of or before menses, with spasmodic uterine contractions, is very sensitive to pain and to draughts of air.

Mercurius.—The chief characteristics of this remedy are an aggravation of all the symptoms at night, and from the warmth of the bed; weakness of memory; answers questions slowly; intolerance of sunlight; aphthæ in the mouth; painful dryness of the throat, with mouth full of saliva; extremely violent thirst; leucorrhœa greenish, with smarting, itching, burning after scratching.

Nux Vom.—Can not think correctly; stupefaction; vertigo after dinner; taste sour; vomiting of sour mucus; hunger, with aversion to food, especially bread; constipation, with frequent and ineffectual desire for stool and sensation of constriction in rectum.

Pulsatilla.—Mild, gentle, timid, yielding disposition, with inclination to weep; out of sorts with every thing; fretful; vertigo, must lie down; paleness of the face; accumulation of sweet saliva in the mouth; absence of thirst; leucorrhœa thick like cream, with swollen vulva; dry cough at night; shortness of breath; anxiety and palpitation when lying on the left side.

Sepia.—Great apathy; indifference to every thing, even to one's own family; indolent mood; face pale; yellow leucorrhœa, excoriating, like pus.

Bovista.—Leucorrhœa, after menstruation, while walking, thick, slimy, tenacious, like white of egg; with drowsiness; with anxious dreams; ill-humored.

Graphites.—Leucorrhœa comes in gushes, is very profuse, and sometimes excoriating; appears day or night; taste like rotten eggs in the morning; painful, sore nipples.

Bryonia.—The symptoms are worse towards night, after waking, after a meal, from motion and contact;

better during rest; with anxiety, discouragement; with leucorrhœa.

Conium.—Violent leucorrhœa, with hoarseness, cough, and expectoration; weakness and pain in small of back, with labor-like pains from both sides of abdomen; symptoms worse during rest.

Cantharides.—Violent itching in the vagina; pressing towards the genital organs; pale face, with wretched, sickly appearance; stinging over the whole body; painful micturition.

Cannabis Ind.—Leucorrhœa, complicated with frequent micturition; mucus in urine when cool; threatened abortion; dizziness of vision; excessive sexual passion, etc.

Carbo Veg.—Leucorrhœa, with great weakness; flatus in the abdomen; slimy diarrhœa, with hemorrhoids; itching of the vulva.

Macrotin.—Leucorrhœa, with neuralgic or rheumatic dysmenorrhœa; insomnia, with nausea; pain in the eye-ball and top of head, pressing upwards and outwards.

Ferrum.—Leucorrhœa, with menorrhagia; flushed face; anæmia, with pale face; palpitation, etc.; vomiting at midnight; great weakness; leucorrhœa corrodes the parts; itching in the vulva.

Hepar Sulph.—Leucorrhœa in scrofulous patients; falling out of the hair; useful after the abuse of *Mercury*.

Lycopodium Clavatum.—Leucorrhœa, with constipation; red sand in the urine; terrific pain in the back; pains in the pelvis from the right to the left side, worse at four P. M.; sharp pains in the labia; one foot cold, the other hot; sallow color of the skin.

Kreosotum.—Leucorrhœa, putrid, acrid, or corrosive in character; very offensive odor; cancer of uterus; burning in the vagina; menses too profuse; deafness during menstruation; œdema of the feet, with constipation.

Muriat. Ac.—Leucorrhœa, with uterine ulceration; great

weakness; dryness of the mouth; watery diarrhœa, with hemorrhoids.

Nitric Acid. — Leucorrhœa, with secondary syphilitic affections; applicable to cases where too much *Mercury* has been used; torpid action of the liver; cases complicated with prolapsus ani, with smarting, burning pain in the rectum; urine has a very offensive odor; especially adapted to patients with dark complexion, black hair and eyes.

Phosphorus.—Leucorrhœa in patients with fair skin, sanguine temperament; sensation of weakness in the abdomen; profuse menstruation; leucorrhœa is acrid.

Platina.—Leucorrhœa, with uterine hemorrhage; bearing-down pain in pelvis; leucorrhœa occurs only in the daytime; induration of the cervix uteri; burning pain in the ovaries; hysterical symptoms, or spasms; feeling of numbness over the whole body; palpitation of heart, etc.

Podophyllum.—Leucorrhœa, with nausea and giddiness; bitter taste in the mouth; dark urine.

Sabina.—Leucorrhœa, with profuse painful menstruation; strangury; the leucorrhœa is thin, and has an offensive odor; tendency to abort about the third month; bloody urine; irritable temper, etc.

Silicea.—Leucorrhœa, with constipation; colorless menstrual flow, complicated with induration of the lymphatic glands in any part of the body; has bad dreams; adapted to scrofulous constitutions; dizziness, with disposition to fall forwards.

Stannum.—Leucorrhœa, with great weakness of the limbs; insatiable hunger; great weakness is the key-note symptom of this remedy.

Senega.— Leucorrhœa, complicated with chronic bronchitis.

Sulphur.— Leucorrhœa, with voluptuous itching; the discharge is offensive and corrosive.

Thuja.—Leucorrhœa, with syphilitic contamination; con-

dylomata on the genital organs; burning in the urethra; headache on left side; can not sleep at night; burning pain in left ovary.

Verat. Alb.—Leucorrhœa, with violent, copious diarrhœa, nausea, etc.

Verat. Vir.—Leucorrhœa, with congestive conditions; pupils dilated; mouth and lips dry; cases complicated with pneumonitis.

Zinc.—Leucorrhœa, with excessive sexual desire; pain in left ovary; patient walks in her sleep; constipation, etc.

CHAPTER XXII.

BARRENNESS AND STERILITY.

THE term "barren" should be applied to those cases which are unfruitful (do not bear children) on account of some abnormal and incurable development of the female generative organs, or through the action of disease that is present, causing a condition which makes it impossible for conception ever to take place; while the term "sterile" should be applied to those cases which are unfruitful on account of some functional derangement of normally developed organs, or on account of some deformity or displacement which can be remedied, or on account of some want of sexual affinity with the husband.

These distinctions are, however, not usually made by the profession, and the terms "barren" and "sterile" are commonly used as synonymous. I think it wise, however, to make a distinction in the terms, for the reason that, when used in a limited sense, either term conveys to the mind the condition present, to some extent, as understood by the writer or speaker. When using the term "barren" he would convey the idea that the patient was hopelessly unfruitful, while if he used the term "sterile" he would indicate that although childless, he considered the patient physically capable of bearing children, after being subjected to proper treatment.

It is often of vast importance that sterility should be cured, so that barrenness does not result. This is the case in families where property is entailed, as well as for the happiness of those who desire offspring.

The physician is often consulted regarding patients who

have thus far been childless, or have become sterile after having conceived once or twice. It becomes us, therefore, to give no hasty opinion, or treat the case as of little moment, for the possibility or impossibility of being able to bear children may be, to our patient, of the greatest importance.

Before pronouncing a patient barren, it is our duty to thoroughly investigate the case, and ascertain if there be any functional derangement, or abnormal development, which we might be able to rectify by remedies or operation. In order to be able to make a correct diagnosis, the physiology, as well as the anatomy, of the female genitalia must be well understood. The process of healthy ovulation—the normal condition of the fallopian tubes, uterus, and vagina—must be comprehended, and the influence of the mind and nervous system upon copulation and conception must be noted, or we may fail to correctly diagnose and treat the case, thereby leaving the patient hopelessly barren, who might be only sterile had we properly understood the case and used proper treatment.

The student should thoroughly study the female organs of generation in the dissecting room, as well as from works on anatomy and physiology. Greater facility of diagnosis must come from the frequent examination of women in active practice.

I do not deem it necessary here to enter into detail regarding the anatomy and physiology of the ovaries, uterus, and vagina. They may be learned from the means and books referred to. (It is to be understood that we are presuming that the patient is married, and that healthy spermatozoa in healthy semen is properly deposited in the vagina by the male.)

Sterility or barrenness may be congenital, or acquired. A woman may bear a child, and from the development of disease subsequently may become sterile, or even hopelessly barren.

Etiology.

First, the causes which produce barrenness are absence of or incurable abnormal development of the ovaries, fallopian tubes, uterus or vagina; false membrane covering the ovaries, as a result of cellulitis, ovaritis, or peritonitis; the presence of double ovarian tumors, very large intra-mural fibroids of the uterus, and cancerous or tubercular disease of the ovaries or uterus. These conditions must necessarily entail barrenness or hopeless and incurable unfruitfulness. When the patient is found suffering from either of these conditions or ailments, we can decide the case barren. She may prove to be barren when at first she presents only the symptoms indicating sterility. If she prove incurable of those ailments ordinarily producing sterility she then, of course, is "barren."

Sterility may result from atresia of the vagina or cervix uteri, imperforate hymen, flexions of the uterus, extreme versions (posterior, anterior, or lateral), elongation of the cervix uteri, endo-cervicitis, endo-metritis, inversion of the uterus or complete procidentia, vaginitis, vaginismus, excessive alkalinity of the uterine secretions, excessive acidity of the vaginal mucus, uterine hemorrhage or polypi, imperfect nutrition of the uterine organs, causing atrophy or arrest of function. This latter condition is most frequently found in those who have married late in life, or have exhausted their nerve strength by hard and excessive study or labor, with want of proper physical exercise and suitable food. The laceration of the perineum in labor, or from other accidents, may render the women sterile or barren, even if there is a failure to restore it by operation. Incompatibility between husband and wife may be a cause of sterility, but not of barrenness, for the impossibility of impregnation would disappear if the patient should marry to a congenial companion.

It is self-evident that the causes which I have enumerated as producing barrenness are incurable, and hence the

woman so affected is permanently unfruitful, and may be termed "barren."

Regarding those causes which produce sterility, I may remark, somewhat in detail, that so far as possible the student may comprehend why it is that these causes produce sterility. It is evident that in the case of imperforate hymen, atresia of the vagina, or uterus, the semen can not be introduced into the cavity of the uterus; consequently, no impregnation can result, unless by surgical interference these deformities are remedied, after which impregnation and gestation may go on normally.

Flexions of the uterus are often the cause of sterility by narrowing the canal of the cervix at the point of greatest flexure; besides, in the patient affected with flexion of the uterus the retention of the menstrual secretion caused by the flexion produces a diseased condition of the lining membrane of the uterus, and may affect it to the extent of making conception impossible, even after the flexion has been cured. The abrupt flexure of the organ, either in its cervical portion or at the juncture of the cervix and body, is almost certain to cause sterility, while the moderate curvature of the organ may not do so.

The proportion of married women who have flexions and are sterile, according to Emmett,* is 54.76 per cent; the unmarried were 25.80 per cent—making a total of 80.56 per cent of all women afflicted with flexures in any part of the uterus, who were either unmarried or sterile, leaving only 19.44 *per cent* who were fruitful at all. He does not say whether any became fruitful after the flexure was treated, or whether the flexure had taken place after gestation. These statistics he gives from three hundred and forty-five cases coming under observation. This, I think, accords with my own experience, and, so far as I can learn from books and otherwise, is about the experience of others.

* Emmet's "Prin. and Prac. of Gynæcology."

Of the whole number of fruitful women who had flexions 10.44 had flexions of the cervix, and 89.56 per cent of the body of the uterus; forty-three of the three hundred and forty-five cases were lateral flexions, out of which number twelve were fruitful (six were unmarried.) Of married women affected with flexions of the cervix 94.16 were sterile. Dr. Emmet thinks that in the very few instances where this class of women were supposed to have become impregnated, that there was a mistake in diagnosis, and that future observations will demonstrate that flexions of the cervix are a sure prevention to conception, and are to be accepted as proof that impregnation had never taken place. (He does not, however, claim that conception is impossible after the flexion is cured.)

The conclusion to which we must come, from all sources of information, is, that all forms of flexion of the uterus are liable to cause sterility, that flexions in the body of the uterus cause sterility much less frequently than flexions of the cervix.

Versions of the uterus tend to cause sterility by causing the os uteri to ascend and lie transversely in the pelvis, and, consequently, the os is obstructed by the vaginal membrane on the side to which it is inclined.

About 57 per cent of those women who have ante-version and about 87 per cent of those with retro-version are sterile. Lateral versions, not usually being so complete as retro-version, cause sterility in only 50 per cent of those affected with the displacement.

Elongation of the *cervix* causes sterility, by making it difficult for the spermatozoa to enter the os, on account of the distance it projects into the vagina, and the depth of the vaginal *cul-de-sac* around it. The per cent of those sterile who have this deformity is not less than 90.

Endo-cervicitis and *endo-metritis* cause sterility in several ways: First, by the irritable condition they induce, preventing the entrance of the spermatozoa or the attachment of the

impregnated ovum. They also may cause sterility from the hemorrhage they produce and the unhealthy secretions they develop.

Vaginitis may cause sterility, from the intense acidity of the vaginal secretions and the tendency which there is in these cases to expel the semen suddenly from the vagina before it can enter the *os uteri.* Vaginitis also causes dyspareunia, which prevents the development of the sexual orgasm so favorable to conception.

Vaginismus causes sterility, by either preventing copulation *in toto* or stopping the sexual orgasm.

Excessive alkalinity of the uterine secretions, or excessive acidity of the vaginal mucus, may destroy the vitality of the spermatozoa, and hence cause sterility.

Uterine hemorrhage, from whatever cause, is likely to cause sterility, by preventing the entrance of the spermatozoa into the uterus, or washing it away, if it gain admittance.

Uterine polypi, or *hydatids, vegetations of the endometrium,* etc., cause sterility, by blocking up the cavity of the uterine canal, and by causing hemorrhage, which, as well as unhealthy secretions, prevent the fructification of the ovum.

Deficient nutrition of the ovaries may cause a failure of maturity of the ovum, and hence cause sterility.

That incompatibility between the wife and the husband may cause sterility is probable by instances which I have observed, and heard of, where parties have not had children, and where both parties became parents after being divorced and married to other companions. This proof is, however, not positive, as the lady may have been suffering from some disease while married to the first man, and might have become healthy afterwards; or she might have used preventive measures with the first, and not with the second husband; or the husband might have been at fault by reason of disease, of which he might have become afterwards cured. The proof is presumptive, however, as it is probable that, in those cases

where there is an aversion to each other, there will be little sexual passion felt or manifested, and there is, consequently, a great tendency to unfruitfulness.

The atony and atrophy in those educated and refined ladies who marry late in life prove a cause of sterility, not only from loss of sexual passion, but from loss of nutrition of the parts. There are, however, exceptions in this class of women; but it is usual that, with women of large mental development, the physical strength declines, not only sexually, but otherwise as well, especially when they live a life of celibacy till thirty years of age. This, at least, is my observation.

Excessive venery is also a cause of sterility, by inducing *inflammation* of the *ovaries, uterus,* and *vagina.* Some sterile women are excessively passionate, and it is sometimes presumable that excessive *amativeness* may be a cause of sterility; or it is possible that the irritation of the ovaries causes the excessive passion *and* the sterility, so that they both have similar causes, instead of the one being produced by the other. *Hemorrhage* from the bowels, *hemorrhoids,* and rectal fissure may be indirect causes of sterility.

Diagnosis.

The diagnosis in cases of those who are unfruitful is for the purpose of determining the cause of the failure of impregnation. The *fact* of unfruitfulness is patent to every one.

The diagnosis of the cause which produces the unfruitfulness is of importance to determine whether or not measures and remedies are advisable, or whether the case is hopelessly *barren.* Upon the correct diagnosis of the cause of the sterility much depends.

The diagnosis of flexions and versions of the *uterus, vaginismus, vaginitis, endo-metritis, endo-cervicitis, uterine hemorrhage, polypi,* etc., may be read under their proper heads. The unhealthy secretions are usually caused from inflamma-

tion in some part; but they may serve as an index to the treatment required. Ordinary test paper may be used to determine the excessive acidity of the vaginal secretions, which will be indicated by the turning of the blue paper to a bright red when placed in the vagina. If only a slight pinkish tint is given to the blue paper, it is indicative of a normal condition. The uterine secretion may be received upon the lower blade of a bivalve speculum, and the test applied. If it change red test paper to a blue, this indicates that the secretion of the uterus is excessively alkaline. If the effect is simply to blanch the red paper, the secretion is not excessively alkaline.

It will be found in practice that flexions or versions are the most frequent cause of sterility; but in case there is no flexion or version found, the cause must be looked for in other conditions I have mentioned. And I may further remark that an abnormally small os uteri, or narrow cervical canal, may be a cause of sterility, and, of course, is to be diagnosed by the effort to introduce the uterine sound and finding it impossible. Scanzoni denies that the very small os uteri may be a cause of sterility, as he has seen conception take place when the os was no larger than a millet seed, and so have others; but these are exceptional cases, and as a rule those patients are sterile, and will become fruitful when the os and cervix are dilated. I think the contracted os is in many cases found after impregnation, when it naturally contracts, and may have been much larger before impregnation took place. If, in attempting to diagnose the causes which produce sterility in a given case, we find the os very small, we shall not go far astray by deciding this to be at least one cause of the unfruitfulness.

Some authors mention leucorrhœa and obstructive dysmenorrhœa as causes of sterility, but they are only symptoms of the inflammation and displacements I have mentioned.

Treatment.

In looking over the great number of causes which may produce sterility, we must be impressed with the great variety of treatment required in different cases to afford relief. The treatment must be adapted to the removal of causes present in the particular case before us; and unless we find incurable deformity or disease, we should proceed upon the assumption that treatment will be successful, and adopt those measures which offer the most encouragement for giving relief. Of course, when the deformity or disease is such as to cause a hopeless case of unfruitfulness (termed barrenness), nothing can be done with any benefit. In case, however, the disease or deformity is one which can be cured, or removed, it should be treated and relieved, whether the difficulty be congenital or acquired.

It is unnecessary in this connection to go over a description of the treatment required in *imperforate hymen*, *atresia of the vagina* or *cervix*, *contraction* or *elongation of the cervix*, *uterine polypi* or *tumors*, *and vegetations* of the *endometrium*, *endo-metritis* or *cervicitis*, *vaginitis* or *vaginismus*, as they may be studied in other parts of this work under their proper heads. I will, however, say a few words regarding flexions, conjoined with contraction of the cervix. These require treatment either with sponge tents or bougies. The treatment requires some skill and patience.

Usually in these cases of contraction of the cervix, either with or without flexion, there is present some degree of cervicitis, and attempts to dilate the cervical canal may produce very much pain and irritation. This may at times be so great as to affect the whole system, and produce such profound effects as even to endanger life.

It is advisable, then, when we find a case in which there is considerable pain produced by even an attempt to make out a diagnosis, that we institute treatment for the relief of the

tenderness (at least till it is mostly removed), before we proceed to any attempt at dilation of the constriction. This can be accomplished by the daily use of very warm vaginal injections of water, with the application to the cervix of wads of cotton saturated with *Glycerine*, or smearing the cervix with dilute *Belladonna ointment* occasionally, and giving internally *Bell.* or *Aconite*, according to the most prominent symptoms manifested by the patient, which are homœopathic to these remedies.

After getting the tenderness mostly or entirely removed, we proceed to introduce the smallest sized sponge tent, well smeared with *Carbolized glycerine*, as far up into the cervical canal as possible by means of the sponge tent holder (see chapter on instruments). I generally do this without the use of a speculum, using the middle finger of the left hand in the vagina to direct the tent into the os uteri, grasping the tent holder with the right hand, of course. The speculum can be used by those who prefer it. But I have found that its use gives usually more pain in these cases, as they have commonly a very narrow vagina, and the use of the speculum gives more pain than it does in women who have had children. The use of tents and bougies is to be carried out the same as in the treatment of dysmenorrhœa caused from flexions and narrowing of the cervical canal.

I will again in this connection warn the student against the use of the tent at his office, and allowing the patient to go home with it inserted, although no serious results have happened in the few instances in which I have done it. Others have not been so fortunate, and the death of the patient has resulted from this cause.

Where dilation is well made, so as to include the internal portion of the cervical canal, and the contraction again comes on, incising the cervix with the hysterotome (see chapter on Instruments), and following its use with the sponge tent for a day or two, and then substituting a tent

made of linen cloth, tapering and of suitable size, is the proper treatment. These tents should be saturated with *Carbolized glycerine*, and a string should be fastened to them before they are introduced, to facilitate their removal.

After the dilation is accomplished we may treat any *endo-metritis* which may be present, causing a *leucorrhœa* or the excessive alkalinity of the vaginal discharges with which some are affected, which destroys the spermatozoa, and which in part may cause the sterility. (See chap. on Leucorrhœa and Vaginitis.)

In cases where the cause seems clearly to be atony or atrophy of the uterus or ovaries, remedies are of great benefit. *Cantharides*, *Nux*, *Secale*, *Puls.*, etc., are often beneficial. A generous diet and out-door exercise may be recommended. Prescribe oysters as a part of the regular diet. Pass a gentle current of *electricity* through the uterus and ovaries every two or three days. See that the bowels act properly and regularly. If they do not, prescribe warm enemas of soap and water, followed by a small injection of tepid water (after the bowels have moved), which may be allowed to remain in the bowel, and give the homœopathically indicated remedy. Let all mental labor be abandoned for recreation and gentle physical exercise.

Want of compatability is usually best remedied by the courts. Still the judicious, honest, honorable physician may sometimes bring harmony out of discord by timely, wise advice.

Excessive sexual passion may require *Kali bro.*, *Picric ac.* or *Camph.* to restrain it, and these remedies are often useful in dyspareunia, vaginismus, etc., as well as excessive amativeness. In these latter cases a plain diet, mostly consisting of vegetables and fruit, is advisable, allowing no stimulants or pastry, tea or coffee.

We must bear in mind that the husband may not generate healthy semen; hence, before deciding a lady barren (after

feeling sure that her genital organs are healthy so far as we can learn, and we feel disposed to blame the ovaries or fallopian tubes for the sterility, and hence make out the case hopeless), we should ascertain if there may not be some fault in the husband's health or development which may explain the want of fecundation. Curling's work on diseases of the "Testis" may be studied with profit in this connection.

When hemorrhoids or fissures of the rectum exist, they should be treated in the hope that their cure may not only bring comfort, but be a relief to sterility as well. These diseases probably cause sterility by making sexual congress painful, and hence preventing the sexual orgasm on the part of the female, as well as producing an irritable vagina, from which the semen is quickly expelled. Dr. Comstock,* of St. Louis, reports a case of sterility, aged thirty-one years, married ten years, in which he discovered a fissure situated half an inch within the anus. The patient suffered greatly in defecation or attempts at copulation; upon curing the fissure painful coitus ceased and she became pregnant six months afterwards. I have had a similar case, with a similar result, the past year.

The cure of hemorrhage from the bowels may usually be accomplished with the use of *Ars.*, *Hamamelis*, *Ferr. persulph.*, *Ipecac.*, or *Aconite*, according to their indications, and may cure the sterility in the case by restoring the system to greater vigor by stopping the loss of blood, so that the proper nutrition of the ovaries may take place, and the want of healthy ovulation be cured, hence relieving the sterility.

Of course, in complete procidentia of the uterus and inversion of the organ sterility must be present; still by restoring the organ to normal position the patient may become fruitful. I have mentioned a case under the chapter on "Inversion," where conception took place after I had replaced the inverted organ. I have repeatedly seen it follow

* Hale on Sterility, page 155.

the cure of prolapse. For the treatment of these displacements see treatment of inversion and prolapse.

The characteristic symptoms of the remedies which have been found of use in sterility are all I shall attempt to give. These are mainly useful in correcting the diseased conditions to which I have referred. These I take largely from Professor Hale's excellent work on "Sterility," to which the reader is referred in case he wishes an exhaustive treatise on this subject.

Indications for Remedies.

Aurum.—This remedy is secondarily indicated in amenorrhœa, dependent on torpor of the ovaries, in scanty menstruation with chronic metritis; in sterility dependent on these states, or due to "coldness" or female impotency with suicidal depression. (Dose, a few grs. of the 2^x or 3^x *trit.*)

Gold is primarily indicated for symptoms similar to *Platinum*, namely: Profuse and frequent menses, congestion of the uterus, increased sexual desire and mental or emotional irritability. (Dose, the 12^x to 30^x *Trit.*) I prefer the *Aurum mur.*, or the *muriate* of *Gold* and *Sodium.*

Agnus Castus.—A complete loss of sexual power and desire; amenorrhœa; melancholy, etc.

Aletris.—General debility; sterility after abortion; inability of the uterus to retain the impregnated ovum.

Apis Mel.—Ovaritis, chronic or acute, with stinging pains in the ovaries; stinging pains in any part of the pelvis or abdomen.

Borax.—Chronic acrid leucorrhœa. (Hahnemann's "Chronic Diseases," Part II.) Membranous dysmenorrhœa; erosions of the os uteri; aphthous affections of the vagina.

Baryta Carb.—Loss of sexual desire and power; scanty menses; takes cold easily.

Cantharides.—Sterility, with great sexual excitement (with loss of sexual passion, used in low dilution).

Capsicum.—Fat sterile women complaining of feeling chilly; amaurosis, with scanty menstruation.

Calcarea Carb.—Sterility, in fleshy women, with leucorrhœa; very profuse or too frequent menses.

Caladium.—Sterility, with melancholy; fetid urine; asthma; loss of sexual power; cold sweat of the sexual organs.

Cannabis Ind.—Sterility, with great sexual excitement; with urinal troubles, inflammation of the bladder, etc.

Chimaphila.—Atrophy of the ovaries and mammæ; urine full of mucus; scaly eruptions of the skin.

Conium.—One of the best remedies in sterility; acrid leucorrhœa; scant menses; pain and swelling of the breasts. (*Tr. Conium* should be made from the unripe seeds.—"Hale.")

Cimicifuga.—Sterility, with spinal irritation; want of vitality in the ovaries; pain in the ovarian region. (I have known many cases of sterility cured with *Cimicifuga* when all other means failed.—"Hale.")

Caulophyllum.—Sterility, with spasmodic dysmenorrhœa; patient subject to rheumatism.

Eupatorium Purp.—Sterility in women who suffer from nervous exhaustion; loss of sexual desire; frequent abortions.

Gossypium.—Sterility, with atony of the uterus; general debility; a flabby state of the uterine tissues.

Helonias.—Sterility, with chlorosis; debility; diabetes; prolapsus uteri; anæmia.

Iodine.—An excellent remedy; sterility, with weakness; general debility; atrophy of the mammæ; goitre. *Iodine* increases the sexual appetite. Valetudinarian women, who have been married a number of years without children not infrequently become gravid after a thorough course of *Iodine*. (Tully.) The "Encyclopædia of Mat. Med.," Vol. V, says that "a case is said to have occurred where the female became sterile soon after commencing the use of *Iodine*. Before she commenced the use of the *Iodine* she gave birth to a

child annually; but from the time of commencing its use to the present—a period of eight years—she has never become pregnant." (Hale, p. 189.)

Bromine has a similar effect to *Iodine.*

Iodide of Lead.—Sterility, with atrophy of the ovaries.

Iodide of Potassium (*Kali hydriodicum*).—Similar to *Iodine.*

Kali Carb. produces sterility (Hahnemann's "Chronic Diseases"); therefore, it should cure those cases, if leucorrhœa appears to be a prominent symptom, with debility.

Bromides.—All the *Bromides* benumb the sexual desire, and cause a partial paralysis of the reproductive organs. In high attenuation they are indicated in sterility caused from sexual inactivity. Give low in cases of excessive sexual passion, to relieve sterility.

Phosphorus.—The greatest remedy we have in cure of sterility. (See Hale on "Sterility," p. 193.) It closely resembles *Cantharides* in its action on the female genitalia.

Phos. Acid.—Similar to *Phos.*

Platinum.—Sterility, with melancholy; changeable mood from day to day; hysteria, with onanism; excessive sexual passion.

Pulsatilla.—Sterility, with delayed or scanty menstruation; entire suppression of the catamenia for years, with sterility. (I have known *Puls.*, two doses of the 3^{x}, in several cases, at once cause the flow to appear, and conception to take place within a few weeks, where the suppression had been of years' standing.)

Ruta. Grav.—Sterility, following abortion, with leucorrhœa.

Sabina.—Sterility, with profuse menstrual flow; congestion or ulceration of the uterus. Compare with *Erigeron*, *Trillium*, *Crocus*, and *Calcarea.*

Secale Cor.—Sterility, with irritable uterus; frequent miscarriages; uterine hemorrhages (use 6^{x} to 12^{x} attenuation).

Sepia.—Sterility, with acrid leucorrhœa.

Stillingia.—Sterility, from syphilis or abuse of mercury. Compare with *Kali iodatum*, *Phytolac. dec.*, *Aurum*, etc.

Ustilago.—(Similar in its action to *Secale*, *Caulophyllum*, and *Cimicif.*)

In cases of vaginismus, conception may follow copulation, used under the influence of an anæsthetic. This should be, however, a last resort, and can only be advised when the parents are exceedingly anxious to have offspring. The student will find occasionally a case where every thing seems favorable to conception, and still the patient will remain sterile. In such cases attention to the husband is advisable. The treatment of his case does not, however, come properly under discussion here.

CHAPTER XXIII.

DISEASES OF THE OVARIES.

Tumors of the ovaries and inflammation of these organs are discussed under special heads in this book. Effusion of blood as a result of the bursting of the Graafian follicle is treated of under the head of recto-vaginal hæmatocele.

Malformation of Ovaries.—The ovaries may be rudimentary or absent. When absent the woman or person is sexless; when one exists in a normal condition, all other parts being normal, the woman may conceive. Usually, in cases of absence of the uterus, the ovaries are also absent. Two cases are mentioned in Ziemssen's Cyclopædia, volume X, where there was a supernumerary ovary.

Ovaritis.—Inflammation of the ovaries is of quite common occurrence. They may both be inflamed at the same time, but it is most common that only one is affected. The left ovary is most frequently affected by inflammation. This may be due to its nearness to the colon and rectum, as it may be pressed upon from a large distension of this part of the bowel. This affection is a very painful one. The ovaries are seen to be liable to inflammatory action when we notice the monthly ovulation which takes place in them. Professor Ludlam has spoken of this ovulation as a traumatic lesion; but we can hardly consider the irritation in the system by this process of ovulation as a case of surgical fever, though in the escape of the ovum there is some laceration of the tissues of the ovary in the rupture of the Graafian vesicle at each menstrual epoch; and, although there is a considerable increase in the activity of the circulation, we can not term this, when only normal, as any thing more than a physiolog-

ical condition, though, without doubt, it predisposes to diseased action. The ovary is more susceptible to the action of cold at the menstrual period than at other times.

The inflammation in the ovary may be acute or sub-acute. The sub-acute variety may exist for a long time, and be the cause of painful menstruation; or, at least, produce pain mainly at the menstrual period; but in these cases the disease is generally connected with uterine irritation. The acute form of ovaritis may supervene on the sub-acute, owing to some unusual excitement, fatigue, or from cold and exposure.

Ovaritis seldom exists independently of other pelvic complications, such as peri-metritis, endo-metritis, or general pelvic cellulitis.

The acute inflammation in the ovary may exist as a primary affection, and the inflammation commonly connected with it in the peritoneum, fallopian tubes, or pelvic veins may be secondary to it.

The ovary consists of a nucleated, tough, fibrous connective tissue, with considerable fusiform muscular tissue, forming the stroma—in this stroma are embedded the ovules of Dr. Graaf. Their number, as seen with the naked eye, varies from five to twenty; but, with the microscope, hundreds are seen of very minute size; in various stages of development. Hence, we may understand the ovary to be a mass of eggs in various stages of development, imbedded in this stromous tissue, surrounded as a whole by two tunics or coverings, the outer one consisting of peritoneum, the inner one of fibrous tissue. These vesicles, of which the ovary is composed so largely, vary greatly in size, the most fully developed being nearest the surface. Throughout the structure of the ovaries permeate an intricate network of blood vessels and nerves. The absorbent glands are few. The ovaries are supplied with blood by the ovarian branches from the aorta, and the nerves are from the spermatic plexus. The absorbents empty into those of the kidney.

The ovum in its escape from the ovary, at the monthly period, or otherwise (the rupture of the Graafian vesicle may take place, with some women, at any time, especially during great sexual excitement), bursts through the fibrous and peritoneal coats of the ovary. Now, in cases of inflammation and thickening, and consequent toughening, of these coats, from chronic, or rather sub-acute, inflammation of these parts, the matured egg may fail to escape. This failure to escape of the matured ovum may cause, by its retention and presence, an increase of irritation, and form the nucleus of an ovarian cyst or abscess, through inflammation in the cyst. This may develop largely, and other *ova* may also be retained from the same cause, and develop other cysts. Or we may have impregnation of this retained ovum in the ovary, producing ovarian pregnancy, which, however, results in an abortive attempt to develop a fœtus, and we have, as a result, a fibro-cystic growth, containing bones, teeth, hair, etc., termed dermoid tumors. Or we may have a retention of these *ova*, and the production of no special development of a diseased nature. In this instance, if both ovaries were affected, we would simply have sterility as a result.

We may have acute inflammation in the parenchyma of the ovary. It may affect one only, or both at the same time. This active inflammation may result in resolution, abscess, hypertrophy, induration, softening, or melanosis, or leave a sub-acute inflammation behind it, which may lay the foundation for the development of scirrhous, encephaloid, or simple fibrous tumors, though fibro-cystic growths in the ovary are more common than fibrous.

The engorgement of blood in cases of acute inflammation is enormous. If not speedily relieved, pus is formed, and finds an exit, by ulcerative inflammatory action, into the vagina or rectum, urinary bladder or pelvic cavity, or works its way along the course of the round ligament, and finds exit at the inguinal ring; or it may be discharged into the peri-

toneal cavity, in which case the fatal result can be delayed but a few days. I have seen it point and be discharged in the iliac region, and the patient recover.

Gangrene of the ovary may result from acute ovaritis, according to some authors; but I have never seen a case.

Etiology.

Suppression of catamenia from cold is the most frequent cause of ovaritis, causing first congestion, and then inflammation. Remedies to cause abortion may sometimes prove active agents to produce inflammation in these organs. Frequent and excessive coitus, self-abuse, or nymphomania, or a severe cold taken just after or during menstruation, may conduce to the development of active inflammation in the ovaries. Or the inflammation may be the result of its extension from neighboring viscera, or organs, which have been primarily affected.

Sometimes acute ovaritis may supervene upon difficult labor, in which case it is probably due to bruising the ovaries against the bony pelvis in the severe throes of labor, in cases where the head of the child is very large. It may result from acute gonorrhœal inflammation, by continuity of inflammation through the uterus and fallopian tubes; or gonorrhœa may cause ovaritis by sympathetic or glandular action. In this case it corresponds to the gonorrhœal orchitis in men.

Diagnosis.

The diagnosis is not always plain, although, with the exercise of some care, we may usually be correct. We are most likely to confound the disease with pelvic cellulitis and colitis.

Chronic Ovaritis may be overlooked by most physicians who have not given diseases of women special study; but as the results of sub-acute chronic ovaritis are so disastrous, it is well to be on the alert to discover and remedy it, if possible.

The deep seated burning pain in the pelvis or in the iliac regions, should lead us to suspect this difficulty, especially when the pain is aggravated by pressure, motion, or the erect posture. Some cases suffer only moderately, except at the monthly periods, when the pain becomes excessive. By introducing the finger high into the rectum, and making strong downward pressure with the other hand just above the pubis, we may generally feel the enlarged and tender ovary. We must be careful not to mistake the uterus for the ovary, and conclude that as pressing the finger against it does not produce pain, consequently we have no ovaritis. But the uterus and ovaries must be carefully distinguished. In cellulitis the enlargement will be felt more extended in most cases, and will appear immovable, while the inflamed ovary is movable. If the tenderness is so great that we can not well make a physical examination, we had better give an anæsthetic and proceed. Though this excess of tenderness is indicative of cellulitis it may mean very active ovaritis, either alone or in conjunction with cellulitis; differentially we should examine through the vagina, when we will find, if cellulitis be present, a hard enlargement in the upper and posterior portion of the vagina, which will appear firm and immovable, as if attached to the bony pelvis. This we do not find in an uncomplicated case of ovaritis. We find some tenderness on pressure in the iliac region, and, if the inflammation is active, we soon have an extension of the inflammation and tenderness over the most of the entire abdomen, causing the patient to semi-flex the thighs and limbs and lie square upon the back, or the side well turned on the face. With active inflammation we have rigors, high fever, the wiry pulse, rapid respiration, great prostration of strength, nausea, etc.

Treatment.

In acute ovaritis the most efficient remedies I have found are *Aconite*, till the pulse is softened, then *Secale*, *Macrotis*,

Ars., *Bell.*, *Bry.*, or *Puls.* If the disease goes on to suppuration, *Merc.*, *Lachesis*, *China*, *Ars.*, *Hepar sulph.* may be indicated. Warm hip baths, and warm water vaginal injections, with warm foot-baths, are of service in the acute form. Rest in the recumbent posture, and keeping the bowels moved with enemæ, is imperatively necessary. In case pus forms, which it is likely to do in twelve or fifteen days, unless the disease is moderated by treatment, it is known to have formed by the occurrence of rigors and chills. If matter can be detected, we may evacuate it, if possible, through the posterior walls of the vagina, by means of a long, aspirating needle, or the curved trocar, retaining the canula in the abscess for a few days, to secure the thorough drainage of the abscess, and prevent its discharging the pus into the cellular tissue between the vagina and rectum, which would awaken a cellulitis, and probably produce pelvic abscess. Where there is distinct pointing of the abscess in other localities, it may be evacuated with the trocar or aspirator artificially, either in the iliac region, or in the linea alba; in some instances, sometimes, the escape of the matter is spontaneous, through some of the natural outlets of the pelvis (the vagina, rectum, or urethra). In some cases it may be necessary to use a stimulating injection into the abscess to cause adhesions of its walls. For this purpose the *Comp. tr. iodine*, twenty drops to the ounce of water, is, perhaps, the best remedy known. This may be repeated every day for a week or two; and if adhesive inflammation does not result, we may increase the strength of the injection till it it is efficient.

Nourishing diet is to be given. Sometimes egg-nog, beef tea, and the like, are demanded by the prostration.

When only one ovary is affected, conception has been known to take place. In chronic ovaritis, the treatment should in the first instance be directed to removal of the cause, if possible, whether it be onanism, excessive venery,

or amenorrhœa. If we are successful in removing the cause we may expect a speedy subsidence of the irritation, unless it has progressed to softening or induration, in which case we can not look for rapid relief, and we are likely to have sterility remaining at best.

In the sub-acute form it is of the utmost importance that the disease be early diagnosed, and relieved before serious consequences have resulted, prevention being better than cure.

The treatment of ovarian dropsy and tumors, etc., which may arise from ovaritis will require separate chapters for their discussion. I will say, however, that there are cases of hypertrophy of the ovary, resulting from ovaritis, which may be greatly diminished in size, and sometimes cured, by the external and internal use of *Iodine*. Just the condition of the ovary in some cases of enlargement where death does not ensue, it is impossible to always know. But that enlargement of the ovary to a considerable extent may diminish in size, and sometimes disappear entirely, I assert. The history of two or three cases I will give in illustration.

Mrs. H., aged about thirty-five years, native of Illinois, married, mother of three children, youngest aged four years, consulted me April 10, 1874, in regard to a "tumor in her side." She stated that it had been observed for over a year, and was gradually increasing in size. On making a physical examination I found the tumor to consist of an enlarged movable ovary. It occupied the entire left iliac region, and rose one-half the way up into the left lumbar region. It impinged somewhat upon the hypogastric region as well; but occupied the left iliac completely. The uterus I found healthy, though somewhat higher in the pelvis than natural. The sound indicated no enlargement or tenderness of the uterus. The tumor was only slightly tender to the touch. Menstruation had been normal and regular.

She had become alarmed at the prospect of having to

undergo the operation of ovariotomy, which had been told her was necessary by other physicians who had examined her. She had been sent to me, as her family physician afterwards told me, to have the operation performed. General health of patient was good, though from loss of sleep and from despondency she had some little gastric irritation. She seemed almost crazed by the idea of an operation, and desired that every other means be used to relieve her. (I had the year before treated a somewhat similar case, with a diminution of at least one-half in the size of the tumor in two months, when the lady left the city and I lost sight of her, and I have not yet learned the result.) I accordingly told her I would try what remedies would do for her, thinking at least I would do her no harm, and as time was not important in her case, I would see if she could be benefited, though I could arrive at no very definite cause of the disease.

The menses had been somewhat painful for about eighteen months, at the commencement of which time she had been troubled with an attack of inflammation of the womb, caused from a cold, as she supposed from what her physican had told her. I accordingly put her upon *Merc. protiodide* 3^{x} for about a week, giving a powder every three hours; then upon *Iodine* 6^{x} at same intervals. I sometimes for a few days gave *Iod. Merc.* or *Ars.;* but mainly *Iodine* in some form or combination, and externally over the entire surface of the abdomen, distended by the tumor, I had painted once or twice a day *Tr. Iodine.* Sometimes, owing to the tenderness of the skin, I would omit the *Tr.* and apply *Iod.* and *Glycerine* for a few days, and return again to the *Tr.* alone. Sometimes, for a few days at a time, I had warm, wet compresses applied over the tumor, covered with dry flannel and held in place with a bandage.

I pursued this treatment thoroughly, and had the satisfaction of seeing the tumor diminishing in size after about six weeks' treatment; after that the diminution was quite con-

stant, though slow, for about nine months, till it finally could be felt no more. After three or four months' treatment it required a little pressure to feel it. It was then about the size of two fists; it went down smaller and smaller till it disappeared, as I said before. Now, June, 1880, I know the lady to be still free from any trouble, and there has been no return of the enlargement of the ovary, now over five years since I treated her. Her gratitude and joy is, of course, unbounded.

ANOTHER CASE.—Mrs. N., aged about sixty years, widow, mother of six children, youngest about eighteen years of age, consulted me by the advice of friends on account of a tumor in the side of her abdomen, which, from its weight, gave her much trouble, she being obliged, from its size and weight, to stoop very much in walking. She stated that she had first noticed the tumor of small size in the left iliac region, about twenty-six years before; that it was tender for some years, and increased very slowly in size till after the birth of her last child, when it increased quite rapidly. After she had noticed the tumor she had borne two children. Her general health had usually been quite good, though at times she suffered much from constipation and somewhat from indigestion and flatulency, and the tumor had always felt hard.

She stated that in former years she had consulted several physicians, who had all agreed that it was an ovarian tumor, and advised its removal by operation. This she had refused to submit to, and had thought that for fifteen years it had remained about the same size. It seemed, of late, to inconvenience her more from its weight, or she seemed to suffer more from it with some cystic irritation, causing frequent desire to micturate.

I had little or no hope of effecting a diminution of the growth, but made a careful examination; found the tumor clearly ovarian, extremely hard almost like stone, rising and enlarging from the left of the pubis, upwards to a little above

the umbilicus, occupying the left side of the abdomen and distending it. The uterus was normal though rather small, as is usual with women of this age.

I had her under my personal care for about three months, when the tumor had decreased considerably and softened very materially. She returned home, and her physicians continued treatment, which was similar to that used in the preceding case all through. I saw her about a year afterwards, when she could and did walk quite erect; the tumor had diminished fully two-thirds, and gave no inconvenience; since which time she has discontinued treatment, and I hear from friends that she remains quite well still, with the tumor about the same as when I last saw it.

Many other cases, not quite so striking as these, where the enlargement had been of shorter duration, or less in size, I have entirely cured with this plan of treatment. In some cases I have failed, the tumor going on to greater and greater development. Possibly some of them have not been thorough in the treatment, as I have had the personal care of only three or four of the cases of failure.

The conclusion to which I come is this, that there are cases of induration and hypertrophy of the ovary which are not urgent, where we may well make the trial to promote absorption. If we fail, nothing is lost; if we succeed, much is gained. Some may claim that these cases reported were "fibroids of the uterus." If they were, the result was satisfactory. It is impossible to prove either that they were or were not pedunculated fibroids of the uterus. The evidences seemed clear to me, and the other physicians who saw the cases, that they were ovarian hypertrophy and induration. Fibro-cystic tumors of the ovary can not be cured this way. (See Ovarian Tumors.)

CHAPTER XXIV.

OVARIAN TUMORS.

In a work on "Diseases of Women" we can not go as fully into the discussion of this subject as has been done by Prof. Peaslee, who has given us a work of five hundred and fifty pages upon this topic alone. To Profs. Peaslee, Ludlam, Gross, Byford, Danforth, Scanzoni, Kiwisch, Beckwith, Hunt, and others I am under obligation for useful suggestions.

I will endeavor to present practical points for the guidance of the student in diagnosis, etiology, and treatment, with as little as possible of speculative theories, developing, as well as I am able, the *homœopathic treatment.*

Classification of Ovarian Tumors.—Ovarian tumors may be considered in three classes—the solid, cystic, and compound; the solid consisting of solid material; the cystic being fluid within a sac, or cyst; the compound being composed in part of solid and part of fluid material.

The *solid ovarian tumors* are:

1. Fibroma;
2. Enchondroma;
3. Osteoma;
4. Carcinoma;
5. Papilloma.

The *cystic ovarian tumors* are:

1. Hydrops Folliculorum;
2. Cystoma Ovarii { Struma; Oligocysts; Polycists;
3. Dermoid Cysts.

Etiology.

The causes of ovarian tumors are not well understood. Peaslee says: "Nothing is positively known of the cause of ovarian tumors." Scanzoni maintains that hyperæmia of the ovary causes the disease. Dr. T. S. Lee admits marriage to be a frequent cause; while Dr. Chas. Clay asserts that the number of ovarian cysts in the married and unmarried is about equal. Drs. Rose and Lever support the hereditary nature of the disease; while others maintain that sterility is a frequent cause of ovarian tumors.

Now, we think all are right in part, and that sterility, marriage, hyperæmia, parturition, etc., may sometimes tend to the production of the disease; but, if we state that sub-acute chronic ovaritis is the cause of ovarian tumors, we think we would be expressing, in most cases, the true cause in few words. This *sub-acute chronic ovaritis* may be caused by *unsatisfied sexual passion*, as well as *excessive venery*, by *severe labor*, by *inflammation* extending from the uterus in cases of metritis, or from the peritonæum in case of peritonitis, or from *pelvic cellulitis*, resulting from *cold*, *abortion*, or *puerperal peritonitis*. Either of these conditions, as well as *onanism*, may produce the condition of *chronic sub-acute ovaritis;* and the scrofulous diathesis may predispose the patient to the development of the disease.

I do not intend to say that we will be able, in all cases, to make out, from the history of the case, positive evidence of the *chronic sub-acute ovaritis*, for the reason that the symptoms in these cases, being often somewhat obscure, may not have been noted, and, as we are not likely to see the case in its entire development, we may not be always able to trace the disease satisfactorily from its incipiency. Prof. Byford, I notice, leans to this view of the case. He says: "Inflammation of a low grade and somewhat chronic duration might cause induration or thickening of the indusium,

so that it would not yield to the upheaving pressure of the ovisac." Prof. Gross attempts no explanation of the cause of the development of ovarian tumors. So far as I can learn, those who claim sterility, marriage, or maternity as causes of ovarian tumors offer no explanation of the *modus operandi*.

We are of the opinion that any thing which acts to produce a chronic irritation in the ovaries may be considered a prime cause of the disease. In some instances the cause is so obscured as to be undiscoverable. That the married state may tend to develop the disease, by causing chronic sub-acute inflammation of the ovary, by reason of excessive sexual congress, or too long continued and incomplete excitement, or resulting from abortions, or poor recovery from confinement, I do not deny; and they may become subject to ovarian *Dermoid cysts* as a result of *extra-uterine* conception (ovarian), according to Cruveilhier, and as we believe.

The idea of ovarian cysts being formed from the ovisac has been adopted by Scanzoni, Velpeau, Cruveilhier, Negrier, Hertz, Hodkin, Paget, Farre, Huguier, and others. Rokitansky considers them to result from an elementary granule, which grows by intussusception into a nucleus, and then into a structureless vesicle. Dr. Peaslee says: "The oligocyst commences as a dropsy of the ovisac, and may practically be considered simply as a larger development of the *hydrops folliculi*, and the polycist as a colloid degeneration of the *ovarian stroma*." Rokitansky * has demonstrated the possibility of a cyst to form from a ruptured Graafian follicle; or, in other words, from a corpus luteum, and Prof. Emmett † has seen one such case. After the closure of the opening, where the Graafian vesicle ruptured, the corpus luteum developed into a cyst; but this method of development must be very rare, and even the authors quoted do not make the matter as

* *Allg. Wiener Med., Z.* 1859, No. 34, Lehrb. 3, Aufl. p. 48.

† Page 760, Emmett's "Prin. and Prac. of Gynæcology."

plain to my mind as I could desire. Still they may be correct, that the possibility exists for the development of cystoma in this way.

These cases, however, are exceptional to a degree which makes them unworthy of more than a passing notice. But to a failure to rupture of the Graafian vesicle owing to the thickened condition of the indusium caused from slow inflammatory action, producing exudation of organizable plastic material over the surface of the ovary, is probably due the large majority of cases of cystoma. Rindfleisch * has detected ova in the primary cyst. The cause of dermoid cysts being attributed to ovarian conception seems plausible enough. Still we must remember that *dermoid cysts* have been found in the testicle, and, in a few instances, in the kidney, bladder, scrotum, brain, stomach, and behind the peritonæum, on the posterior walls of the abdomen.

In view of these facts, we must conclude there is some other method of formation of the dermoid cysts besides impregnation. The congenital development of these cysts has been offered, by Boinet, as an explanation, considering that two ova were impregnated at the same time in the uterus of the mother, and that, by some means, the one was partially developed within the other. How the one ovum got within the other he does not explain. I will suggest as a possible explanation that the ovum which became impregnated contained another ovum, owing to abnormal development of the parent ovum (so to speak) within the ovary—this impregnation resulting in the development of a perfect fœtus, with the exception of this blighted second ovum within the first, which was sufficiently impregnated to produce parts of a physical frame, as skin, bone, teeth, hair, etc., these being contained within a sac, and being located, accidentally, in any part of the living fœtus. If this theory is correct, we readily see why it is that these dermoid cysts are more frequently

* Peaslee, p. 44.

found in the ovary or testicle than in other localities within the body, which observation has shown to be the case.

Fibrous, cartilaginous, and osseous tumors of the ovary are as clearly due to *sub-acute*, *inflammatory* action as are the purely cystic; this inflammatory action causing an effusion of plastic material, which takes on organized growth through a mysterious action in nature (though, perhaps, it is no more mysterious than the deposit of plastic material between the ends of a fractured bone, finally developing into an osseous formation firmly connecting the fragments). Acute inflammation of the ovaries may leave a sub-acute ovaritis, which may tend to produce ovarian tumors, and in this way the acute inflammation may be a cause of ovarian growths.

I would not say that sterility caused ovarian tumors, but that the same cause that tends to produce sterility in some cases also tends to produce ovarian growths. We have ovarian tumors affecting only one side, and the patient conceives, the ovum coming from the healthy ovary, and pregnancy goes on in some of these cases to full term, and a healthy child is delivered, though usually, if the ovarian tumor is of considerable size during gestation, the child is weakly, owing to the unusual pressure to which it has been subjected within the abdomen, because of the presence of the tumor there at the same time.

Derangements of menstruation, which some authors have stated to be a cause of ovarian tumors, I think may be considered as accompaniments, or caused from the same or similar conditions, rather than as causes. In cases of menorrhagia preceding the discovery of an ovarian growth, I find that the excessive flow is due to sub-acute endo-metritis, and in conjunction with this affection we have the chronic sub-acute ovaritis, either from extension of the inflammation from the uterus to the ovary or *vice versa*. But I can not see how derangements of menstruation can more than indirectly tend to the production of the pathological condition

which would develop ovarian tumors. Cases do occur, 't is true, where derangements of the menstrual function (the menses are sometimes scanty or absent, and sometimes excessive) precede the discovery of ovarian disease; and we sometimes have an unusual amount of pain at the menstrual period in these cases; but I would refer the pain to the sub-acute ovaritis, as I would the development of the ovarian growth, and not to the excessive or diminished flow. In so far as sudden suppression of the menses from cold may affect the ovary to produce congestion, however, it may indirectly tend to the production of a condition of induration or inflammation of the organs, so that, in the course of time, an ovarian tumor might result.

Marriage.—From all I can gather, statistical or otherwise, I conclude marriage has little effect in the development of ovarian cystoma. Dr. Churchill believes that those who have borne children are more liable to cystoma; while Dr. I. B. Brown finds that the larger number of married patients with ovarian tumors have not had children. Dr. Peaslee's experience is the same; while my own is that the number of married ladies afflicted with ovarian cystoma have been about equally divided between those who have borne children and those who have not.

T. Stafford Lee concludes that disappointed affection is the most active predisposing cause. With this I can not agree.

Age.—Cystoma is most frequently developed between the ages of twenty-five and forty years, showing that the period of the greatest ovarian activity is the period most favorable to the development of ovarian tumors, though exceptionally they have been known to occur in the very young and in the old.

The disease is sometimes congenital, or develops in infancy, though very rarely so. Dr. T. G. Thomas* reports to the New York Obstetrical Society a case occurring in

* Amer. Jour. of Obstetrics, 1880, p. 118.

New Jersey in the practice of a physician, whom he does not name, but who sent the tumor to him, with the following report of the case: "The child was delivered by him at full term, and nothing abnormal was discovered at the time. About one month after birth a tumor was discovered in the iliac fossa. The child was well developed at birth, but soon showed signs of impaired nutrition, became emaciated, grew slowly, and languished till three years and five months old, and died. Autopsy revealed the existence of an ordinary ovarian cyst, filling the abdomen. The remains of the fallopian tube and ovary were upon one side of the tumor." This case seems to have been of congenital origin, although the development of the tumor occurred subsequent to birth.

Pressure from the Rectum.—It has been thought by some that the left ovary was the most frequently affected, owing to its near relation to the rectum in the pelvis; but statistics do not prove this to be true, but that the right and left ovary are about equally affected. In fact, the preponderance of evidence is rather in favor of the right ovary being most frequently affected; as Dr. Charles Clay reports, that, of eight hundred and fifty cases examined, two-thirds were of the right side and one-third on the left. In four hundred and fifteen cases observed by Drs. Scanzoni, Lee, West, and Cheveau, the right ovary was affected alone in two hundred and one instances, the left alone in one hundred and forty-eight, and both in sixty-six cases. This seems certainly to disprove that the left is most frequently affected.

Symptoms.

It is sometimes the case that in the first stage of development of ovarian tumors the patient experiences no peculiar symptoms, and the growth is first observed as a tumor of considerable size in the right or left iliac region, and even then giving no discomfort. In other cases the patient experiences those symptoms considered as indicative of general

pelvic inflammation, or of inflammation of some one of the pelvic organs. A sense of weight in the pelvis is experienced, with a feeling of uneasiness; defecation is difficult and painful; indigestion, nausea, and flatulency are complained of; and, in fact, all the general symptoms of uterine disease are sometimes present; and it may be observed that we have in some patients a complication of uterine inflammation, cellulitis, etc., in the case, and these general symptoms are due, in large part, to these complications.

The peculiar symptoms of ovarian inflammation are most likely to be present, and, in some instances, displacements of the uterus in the form of retro-version or prolapse are present, having resulted by the weight of the enlarged ovary; and the difficult defecation is due to the pressure of the enlarged ovary against the rectum. The pressure of the distended rectum and the straining at defecation tend to produce downward displacement of the ovary, and, with it, retro-version, retro-flexion, or prolapse of the uterus. In some cases the breasts enlarge, and there is a secretion of milk in them. The menstrual flow is sometimes greatly diminished, sometimes excessive, and sometimes normal. Diarrhœa is sometimes caused by the extension of irritation from the ovary to the rectum. Tenesmus is usually very annoying, in these cases troubled with diarrhœa.

On vaginal examination a tense, though somewhat fluctuating, mass may be felt in the posterior *cul-de-sac;* the uterus, being crowded anteriorly in the pelvis, often produces irritation of the urethra, and a frequent desire to micturate, which is accomplished with considerable pain of a smarting or burning character.

Rectal Examination.—By a rectal examination we may more clearly ascertain the nature of the difficulty. The ovarian cyst is almost always round and uniform in shape, and the feeling of fluctuation, as of a fluid within a sac, is to be noticed. There are several conditions liable to be mistaken

for the ovarian cyst in its first stage; viz., extra-uterine pregnancy, tubal dropsy, or cyst of the broad ligament; but of these I will speak under the head of Differential Diagnosis.

Second Stage of Development.—When the sac enlarges sufficiently to rise above the pubis, it is called its second stage of development. The uterus will now usually be found lower than normal in the pelvis, although, when the tumor reaches a size sufficiently large to rest upon the brim of the pelvis, the uterus may be drawn up higher than natural. The rectal examination, conjoined with the vaginal, will reveal the absence of the fluctuation discovered in the first stage, already mentioned as located in the posterior part of the vagina, or, in some cases, laterally. The tenesmus and dysury are relieved entirely, or in a great measure. We find the tumor occupying one of the iliac regions, and impinging upon the hypogastric region. The tumor is fluctuating, though it requires some dexterity of touch to discover the fluctuation, owing to the resistance of the abdominal walls. As the tumor increases in growth, the bladder is pressed upon and displaced downwards, and we again have the desire for frequent micturition.

The commencement of the *third stage* is marked by the tumor reaching to the umbilicus. The small intestines are crowded behind and above the tumor, so that we now have dullness on percussion over it. The fluctuation is now more distinct.

The *fourth stage* is simply a continuation and increase of the third, and is characterized by the pressure of the tumor upon the abdominal viscera to the extent that we have a diminished action of the kidneys, indigestion, loss of appetite, nausea, sometimes diarrhœa or constipation. The pressure is often so great as to interfere with the full action of the lungs and heart, and the patient is unable to lie down. The countenance indicates distress and anxiety. It is characterized by Mr. Wells as the "Facies Ovariana." The lips

are thin, eyes sunken, tissues of the face seem atrophied, skin of face wrinkled. Emaciation of the neck and shoulders is also marked. Œdema of the extremities frequently complicates the case in this stage, and we sometimes have uræmia, resulting from the pressure of the tumor on the renal vessels.

Differential Diagnosis.

Ovarian tumors are liable to be incorrectly diagnosed from the fact of various ailments simulating them. It is common for the physician who has not a large experience in the examination of women to get embarrassed in making any examination of the female generative organs; but he is especially liable to error of diagnosis in relation to the various tumors which affect these organs; and this is not to be commented on too severely, as errors of diagnosis in this regard have been made by the most noted gynæcologists. But the fact of errors of diagnosis having been made should stimulate investigation to that extent which may enable the future generation of physicians to become more expert than we are, or have been those who preceded us.

The condition of pregnancy is one which sometimes complicates ovarian cystoma, and from which it is sometimes a little difficult to diagnose. Especially is this the case in the entire absence of menstruation, or its appearance in small amount at each monthly period. In the early months of the development of cystoma it is comparatively unimportant to make a clear, positive diagnosis, though it is more satisfactory to both physician and patient if we are able to do so. One of the most positive diagnostic points in pregnancy is the closure of the os uteri. If we find it closed, the os seeming as if cemented or glued shut, we may feel sure, in the absence of menstruation for three or four months, in connection with the enlargement of the uterus (apparently corresponding to the time of the suppression of the menstruation), that we have pregnancy in the case, and that the

symptoms of pressure upon the rectum are due to a retroverted or retroflexed condition of the uterus. We find, on examination by the rectum, that the tumor feels dense, and that palpitation gives no evidence of fluctuation; and, upon pressing upwards on the tumor, we find the neck of the womb is moved downwards; while, if the tumor be ovarian, it might be moved without moving the uterus. The uterine sound should not be used unless we are positive that the patient is not pregnant.

The gravid uterus, in the later months of gestation, is most frequently mistaken for ovarian tumor. I have had a case—a Mrs. S., of Peoria, Illinois—whose history showed a gradual development of the abdomen for over two years. She said the enlargement had commenced in the left iliac region, and steadily increased. She had the peculiar *facies ovariana* (mentioned by Wells), emaciation of shoulders, etc. Menstruation had been irregular, especially so for about seven months, being absent sometimes over two months, and scanty when it appeared. I diagnosed pregnancy, complicated with ovarian cystoma, contrary to seven or eight other physicians of excellent standing, who diagnosed ovarian cystoma alone. The distension of the abdomen was enormous, and, the patient being very weak at the time I saw her, I did not feel it advisable to use anæsthesia to aid in the diagnosis; but I could distinguish the pulsation of the fœtal heart, as I thought, though I could not detect motion of the child. I could feel a hard, irregular mass, occupying a part of the abdomen. The result proved the correctness of the diagnosis, as she was subsequently delivered of a dead fœtus. After confinement, the distension of the abdomen remained, as well as the fluctuation, nearly the same as before delivery; and, after about two months, the patient died. I assisted in the necropsy, and found the uterus normal. There was a large dermoid cyst of the left ovary, containing about twelve quarts of thick, opaque liquid, with

a large quantity of hair. There were also several small cysts. The right ovary also had some small cysts developed in it. The case was one calculated to mislead any one, and it was fortunate that no operative procedure was undertaken.

The Placental Bruit.—The placental bruit, which is heard in pregnancy, may be present in fibroids of the uterus, or a sound which can not be distinguished from the placental bruit may be heard (I should say). Drs. Scanzoni and Churchill assert they have heard this sound in ovarian tumors; hence, it is not distinctive, and can not be relied upon in differential diagnosis.

The Beating of the Fœtal Heart.—In using auscultation over a suspected ovarian tumor, we should bear in mind that it is necessary, in order to avoid error, that we compare the rapidity of the supposed heart of the fœtus with the pulse of the mother. For although the pulsations as heard in the abdomen may number 120 or 130 per minute, they may correspond with the pulse of the mother, and be simply the circulation of the blood in a fibrous tumor of the uterus.

Time.—The time which has elapsed since the development of the first appearance of the tumor will give some aid in diagnosing it from pregnancy, as the ovarian tumor will, as a rule, develop more slowly than the gravid uterus, with an occasional exception. It will usually take a year and a half or more to develop an ovarian cystoma to the size of the gravid uterus of seven months.

Extra-uterine Pregnancy.—Some cases of extra-uterine pregnancy may be very hard to diagnose differentially from ovarian cystoma, as the uterus in both instances is about normal, and we may have menstruation continuing in both classes of cases.

It is general that ovarian cystoma develops more slowly than extra-uterine pregnancy. In the extra-uterine pregnancy, if it be tubal, there will generally be a rupture of the tube at about the third month, when a necropsy will

probably be possible, and make the diagnosis clear. In ovarian and abdominal pregnancy, gestation may go on longer, and be more difficult of diagnosis, and we have a condition which simulates fibro-cystic growth of the uterus more clearly than ovarian cyst. Still, these cases bear some resemblance to ovarian cystoma. Generally, if the patient be placed under the influence of an anæsthetic we are able to make out the outline of the fœtus within the cyst. There is generally more disturbance of the general health in extra-uterine gestation than in ovarian cystoma during the first months of its existence.

Of course, the physician will, in these cases, never omit to listen for the pulsations of the fœtal heart, which, if found, would materially clear up the diagnosis; but if they are absent, the case may still be one of extra-uterine gestation with a dead fœtus.

Enlarged Liver and Hypertrophy of the Spleen.—Carcinoma of the liver or a collection of hydatids of the liver may be mistaken for ovarian tumor; also the enlarged spleen. But if we bear in mind these enlargements commence and are attached in the upper portion, instead of the lower part of the abdomen, together with the harder feel, in connection with the general health of the patient, and the history of the case, we will not be led into this error.

Retro-Uterine Hæmatocele.—Retro-uterine hæmatocele may simulate ovarian cystoma of small size; but it usually presses down between the vagina and rectum, much lower than cystoma, and is more diffused; and, besides, the suddenness of the attack, occurring, as it usually does, at the menstrual period, taken in connection with the collapse, and shock to the nervous system occurring in hæmatocele, will be sufficient to differentiate it from cystoma, which comes on insidiously, without any serious disturbance of the general system at this stage.

Fecal Tumors.—A retention of fecal matter in the rectum

may in some measure simulate ovarian cystoma. Clearing the bowel with an enema of warm soap and water, followed by cool injections, will generally produce the desired effect, unless the impaction is situated above a retroverted uterus; in which case, if an effort be made to reinstate the uterus by means of the fingers or an instrument introduced into the rectum, the nature of the difficulty will become apparent. Constipation would not be conclusive evidence of fecal tumor, though it be in connection with an enlargement in the posterior part of the vagina, as we have very usually constipation in ovarian cystoma, retro-version, and recto-vaginal hæmatocele.

In some instances the tumor presses so much upon the nerves and blood vessels as to produce lameness and œdema of the lower extremities. Sometimes, though rarely, adhesions form in *Douglas's cul-de-sac*, which give the tumor the firm, immovable feel, very much like that which is felt in *pelvic cellulitis*, and we are to distinguish *ovarian cystoma* or *fibroma*, in these instances, from *pelvic cellulitis*, in that we have in *pelvic cellulitis* extreme tenderness on pressure, while in *ovarian cystoma* or *fibroma* the tenderness is only slight, even under considerable pressure.

In the second stage of development, the urgent symptoms, which sometimes characterize the first stage, are very much alleviated, as the tumor rises above the brim of the pelvis, the case is often looked upon and mentioned by the physician and people as a recovery from inflammation of the womb—the term "*inflammation of the womb*" being intended to cover all conditions of inflammation in or about the female pelvic organs, excepting sometimes the bladder and rectum; just as the term "inflammation of the bowels" covers (in their careless way of expressing themselves), peritonitis, entritis, peri-metritis, gastritis, hepatitis, etc., etc. But the error of the diagnosis is after a time apparent to one who understands the development of cystoma, for he knows that ovarian cystoma does not spring into existence in a day or

week, and develop into a tumor reaching near or quite to the umbilicus, which is about the period when the patient takes notice that she has a tumor, or perhaps she considers herself getting stout, or imagines that she is pregnant, although menstruation may continue, and be more than usually free. The patient is liable to believe the flow is an effort to miscarry or something abnormal, which does happen to some women while pregnant. They are sometimes so far misled as to imagine that they feel the motion of the fœtus in utero, and the patient goes on till finally (as labor does not come on at the time she imagines it should) she becomes alarmed, and seeks medical advice, when it becomes necessary for the physician to decide the diagnosis of the case, and make out whether it is a case of pregnancy going over its usual time before delivery (which does quite often occur), or whether it is a case of *cystoma* or *fibroma* of the *ovary*, a *fibroid* of the *uterus*, a *tumor* of the *broad ligament*, *abdominal ascites* or a *fibro-cystic tumor* of the *uterus*.

All of the following conditions have been mistaken for ovarian tumor, according to Prof Peaslee : *

Ascites.	Excessive obesity.
Pregnancy. { Normal.	Physometra.
Extra-uterine.	Hæmatometra.
Molar and Hydatidiform.	Hæmatocele.
Spurious.	Tympanites.
With ovarian cyst.	Renal tumor.
Encysted dropsy of peritonæum.	Floating kidney.
Tumor of broad ligament.	Splenic cyst.
Tumor of mesentery.	Hepatic cyst.
Uterine fibroid, or fibro-cyst.	Fecal tumor.
Distended bladder.	Pelvic abscess.
Retained menses.	Retro-flexion.

First, let us ascertain if there is evidence of a fluid within the abdominal walls, and if we are satisfied that there is, we

* Peaslee on "Ovarian Tumors," p. 122.

must proceed to find out whether the fluid is in the peritonæum as a diffused liquid, or is contained within a sac.

An excellent rule to act upon, in these cases, is to put the patient under the influence of an anæsthetic during the examination. By this means the tension of the abdominal muscles is relaxed, and we have a much better opportunity to discover the nature of the disease, if any be present; for it is not always that there is any tumor, even when it is suspected, and even when it has been so diagnosed by physicians of good ability, and even of renown. Dr. Simpson * quotes six cases, and Boinet † one case, where the abdomen was actually opened for the removal of an ovarian tumor, when it was found that tympanitis was the cause of the enlargement of the abdomen. Of course, some little care in percussing the abdomen would have caused the avoidance of such a mortification to the physician and danger to the patient. As the large ovarian tumor displaces the small intestines backwards and upwards, we find resonance only in the locality of the colon, or in the *epigastric* or *hypochondriac regions*, while there is dullness over the center of the abdomen.

From Abdominal Ascites.—In abdominal ascites, the fluid, being contained within the peritonæum, will gravitate to its lowest portion. Hence, when the patient is placed in the sitting position the fluid will gravitate to the lower part of the abdomen, and we will have greater fullness there than when the patient is reclining, more dullness on percussion over the lower part, and more resonance in the upper portion of the abdomen. Place the patient in the reclining position, on the back, and the abdomen flattens somewhat in abdominal ascites, while in ovarian *cysts*, or *fibroma*, or *fibro-cystoma*, *pregnancy*, *cysts* of the *broad ligament*, and *fibroids* of the *uterus*, the fullness and *hardness* of the *center* of the *abdomen* is maintained about the same as when the patient is erect.

In abdominal ascites there is some degree of resonance all

* Fehr, p. 51. † Boinet, p. 200.

over the abdomen, while in cystoma there is dullness over the center. In abdominal ascites we feel the fluctuation of the fluid more distinctly than in cystoma, where the fluid distends the sac, and gives to the tumor more the feel of a tense, hard substance. In abdominal ascites, if we place one extended palm on one side of the abdomen, and the other upon the other side, and give a sudden impulse with one hand, we feel the impulse in waves of motion, and not as a direct jar; and, by placing the ear to the abdomen, or near it, we may generally hear the slush of the fluid within the peritonæal cavity, when it is of considerable amount.

Some inquiry into the history of the development of the enlargement will aid much in the diagnosis. In abdominal ascites the enlargement is noticed in the lower portion of the abdomen, evenly distending it, while in single ovarian cystoma we learn that the enlargement was first noticed more to one side. If the patient has been troubled for a considerable time with *renal*, *hepatic*, or *cardiac* difficulties, we may be quite sure of having abdominal ascites in the case rather than ovarian cystoma; while, on the other hand, if the history of the patient shows attacks of inflammation in the pelvis, disordered menstruation, with the discovery of the tumor first in the iliac region, we may conclude, with considerable certainty, that the case is one of ovarian cystoma.

Fibro-cystic Tumor of the Uterus.—The fibro-cystic tumor of the uterus develops more prominently in the hypogastric region at first, and simulates the impregnated uterus in its size and location much more than it does ovarian cystoma.

Hydatids of the Omentum.—Hydatids of the omentum, though of extremely rare occurrence, are liable to be mistaken for ovarian cystoma, when fully developed. It may be impossible to positively diagnose the difference between these diseases in some cases. If we bear in mind that hydatids of the omentum commence well up in the abdomen

(and they are usually discovered there), and enlarge downward, while in *ovarian tumors* they commence in the lower part, and increase upwards, we have a good point in differential diagnosis. In some instances, where no adhesions have taken place, we are able to push the mass upwards, and determine that the attachments are not below and not adherent to the ovary or uterus.

From Uterine Fibroids.—Uterine fibroids have been frequently mistaken for ovarian cystoma. It is quite important that this error does not occur, as an operation which might be advisable in *ovarian cystoma* might be very imprudent in uterine fibroids. The fibroid tumor of the uterus is more dense, solid, rough, and nodulated, while the ovarian cyst is smooth. In *ovarian cystoma* the uterus is little affected, while in uterine fibroma we find it enlarged; hence, the uterine sound is an important aid in the *differential diagnosis* of *ovarian cystoma* from uterine *fibroids*. In the case of the *intra-mural* fibrous *tumor* of the *uterus* the uterine sound may be passed seven or eight inches within the os. When we can do this we may be quite sure we have a case of an *intra-uterine* growth, and not ovarian disease.

Carcinoma of the Fundus Uteri.—In Carcinoma of the fundus uteri we have the constitutional symptoms of cancer, with emaciation and fetid discharges, and the tumor does not reach great size before destroying life, so we are in no great danger of confounding it with ovarian tumors.

Diagnosis from Floating Kidney.—Boinet* mentions four cases where floating kidneys have been mistaken for ovarian cystomæ. The following facts are of importance:

1. It is a very rare condition; much more so than is sometimes assumed, as we may infer from the fact that it is so seldom found after death.

2. The assertion by writers that it occurs much more frequently in women than in men probably rests on the

*Peaslee, p. 129. Boinet, p. 205.

fact that a small ovarian tumor is frequently mistaken for it, and the diagnosis is not confirmed by *post-mortem* examinations.

3. It is doubtless congenital. It is tender on pressure, and sometimes nausea is thus produced. It is movable, and has the peculiar shape of the kidney easily made out unless, as sometimes occurs, the hilum looks backwards. It can easily be lifted up out of the pelvis, is permanently the size of the kidney, and produces no symptoms. It may, however, undergo cystic degeneration, when the diagnosis is more difficult.

Dropsy of the Cavity of the Uterus.—Dropsy of the uterus resulting from a cancroid tumor of the fundus sometimes occurs, and simulates ovarian cystoma. Dr. Simpson* reports a case of this kind. If the tumor has existed too long to suspect pregnancy, we should pass the uterine sound (for in the event of its being pregnancy with a cessation of its development from partial separation of the placenta it is unimportant to have the product remain), when we will discover that there is a fluid within a sac within the uterine cavity. It may be punctured with a canula and the fluid evacuated, and such further treatment used as the case demands.

Dropsy of the Amnion.—This results, in some cases, from causes which we are at present unable to explain. The distension in these cases is sometimes enormous, and may be mistaken for ovarian tumor. There is usually complete suppression of menstruation for several months, and we feel distinct fluctuation in the tumor. The patient, though immensely large, has felt no movements of a fœtus, and we can detect no fœtus, or only a small one in the abdomen. Labor pains come on at the completion of the full term of gestation, however, when the nature of the difficulty is proven. In all doubtful cases of suspected *ovarian cystoma*, it is best to wait

*Simpson on "Diseases of Women," p. 431.

until nine or ten months have elapsed before being too sure of the diagnosis, *especially when the menstruation is arrested.*

Retention of the Menstrual Fluid within the Uterine Cavity.—Cases of this kind, caused from occlusion of the neck of the womb or the external os, sometimes occur. They closely resemble in their history and symptoms dropsy of the amnion, and as we would not use the uterine sound unless fully convinced of the impossibility of pregnancy, we might be obliged to wait till the element of time helped to decide the case, unless the general health of the patient made some action on our part imperative. These enlargements of the uterus from dropsical conditions and retention of menstrual fluid may cause many of the ordinary symptoms of pregnancy. There may be the morning sickness, enlargement of the breasts, disgust at the smell of food, etc., so that we have to be careful regarding these symptoms.

Single Cyst of the Uterus.—I have seen in three instances a large single cyst in the uterus. These cases do not vary so much as to be important from large hydatid masses which are formed in some women. (Ten thousand of these small cysts have been delivered from a single patient.) In the case of a single cyst of the uterus we have the enlargement of the uterus, as in pregnancy, with the ordinary symptoms of polypi of the uterus; still such a case might be mistaken for *ovarian cystoma.* There is, however, no excuse for the error to continue to the extent of adopting operative proceedings for the removal of ovarian tumor; for if we wait several months we will be convinced whether it is, or is not pregnancy, and if not, we may proceed to examine with the uterine sound, when we will ascertain the nature of the difficulty, for very likely we will rupture the sac in making the exploration, as happened to me in one case which had been developing for over two years. I dilated the os with sponge tents, and freely cauterized the interior of the cavity of the body of the uterus with *Arg. nit.* The membranes of the

sac were expelled, but no fibrous, fœtal, or placental formation. All these patients have remained without relapse, one now going on seventeen years, the others four and six years, respectively.

Distended Bladder.—The physician who is very careless will be the only one likely to mistake this condition for ovarian cystoma, and this mistake is most likely to be made by one wishing to be especially expert and show off his wisdom for the benefit of spectators. We generally find these cases will inform the physician that they are troubled with incontinence of urine, that it constantly dribbles away. Now this symptom, to the experienced physician, will at once cause him to suspect retention of urine, and he will at once use the catheter, which will clear up the diagnosis as if by magic. The length of time, also, which has elapsed since the distension of the abdomen has existed will, in case of distension of the bladder, be found to be generally but a few days, while in ovarian cystoma it has been observed for months or years.

Pelvic Abscess.—In pelvic abscess the history of the case will show a preceding stage of active inflammation; while we have in cystoma no such stage. In pelvic abscess the duration of the difficulty is much shorter; for, if an abscess forms in the pelvis, the pent up matter seeks an outlet, and there will be observed tenderness at the point where the abscess is tending to find exit. In *physometra*, which consists of a collection of air or gas within the uterine cavity, sometimes of sufficient amount to cause quite a tumor above the pubis, we may discover its nature through percussion over the tumor, which will be so resonant as to indicate its nature. If we are in any doubt, pass a male gum catheter into the uterus, and make some pressure on the fundus of the uterus, and expel the air, when the tumor will disappear, and show that there can be no ovarian tumor in the case.

COMPARATIVE DIFFERENTIAL DIAGNOSIS OF OVARIAN CYSTS FROM UTERINE FIBROID IN THIRD STAGE.

Ovarian Cyst.	*Uterine Fibroid.*
1. More rapid growth.	1. Slow growth.
2. Expression of countenance distinctive.	2. Natural expression of countenance.
3. Abdomen symmetrical.	3. Not so much so.
4. Abdominal veins enlarged.	4. Not enlarged.
5. Kidneys inactive.	5. Kidneys active.
6. General health impaired.	6. Not impaired.
7. Countenance pale.	7. Dark.
8. Frequently amenorrhœa.	8. Menorrhagia.
9. Fluctuation distinct.	9. Rather elastic than fluctuating.
10. Uterus normal.	10. Uterus elongated.
11. No tenderness.	11. Somewhat tender.

COMPARATIVE DIFFERENTIAL DIAGNOSIS OF OVARIAN CYSTS FROM UTERINE FIBRO-CYSTS IN THIRD STAGE.

Ovarian Cysts.	*Uterine Fibro-cysts.*
1. Emaciation.	1. No emaciation.
2. Umbilicus prominent.	2. Umbilicus not prominent.
3. Abdominal veins enlarged.	3. Abdominal veins not enlarged.
4. Expression characteristic.	4. Expression normal.
5. Cyst wall very vascular.	5. Cyst wall not very vascular—light color.
6. Tumor moved independent of uterus.	6. Uterus moves with tumor.
7. Fluid light in cysts which have not been tapped—albuminous.	7. Fluid yellow or dark brown—coagulates.
8. Uterine cavity not generally elongated.	8. Uterine cavity generally elongated.
9. Not tender on pressure.	9. Tender on pressure.

Diagnosis of Adhesions.

The question whether or not the ovarian or uterine tumor has formed extensive adhesions is often of much importance; for, if we feel sure no very extensive adhesions are present, we may advise operative procedure, when we might not if we were sure they existed; for the more extensive the adhesions the more danger there is in the operation for the

removal of an ovarian tumor, other things being equal. Dr. Peaslee, in his work on ovarian tumors, has given us some excellent suggestions on this point, which I will take the liberty to reproduce, although these hints apply to the adhesions in the anterior part of the abdomen, and at present we have no way of determining whether or not there are adhesions in the posterior part. If pregnancy be present as a complication we have more reason to expect adhesions than otherwise. The existence of adhesions may be inferred from the following conditions:

"1. If the relations of the upper extremity of the tumors are not changed by deep inspiration.

"2. If it is absolutely immovable.

"3. If the abdominal walls can not be moved independently of it.

"4. If its position be not changed by tapping; sometimes, after tapping, adhesions may be felt.

"5. If the tumor be a polycyst, and ascites do not co-exist.

"6. If signs of inflammation have existed.

"7. If the fluid obtained by the first tapping is brownish, or of a darker color.

"8. If the lower extremity of the tumor remains low in the pelvis, while the uterus is, at the same time, elevated.

"9. If pregnancy has existed since the commencement of the growth of the cyst. (Dr. Keith.)

"10. If the uterus is in front of the cyst in the third stage, even if the cyst is not felt *per vaginam* in the pelvis."

SYMPTOMS WHICH INDICATE NO ADHESIONS OF THE CYST, OR ONLY SLIGHT, IF ANY.

"1. If the tumor falls an inch or more during a full inspiration, or if the muscles are seen gliding over it.

"2. If it can be moved freely up and down.

"3. If the abdominal wall can be gathered up over the tumor, and made to glide from side to side freely.

"4. If the cyst falls down in a mass towards the pelvis after tapping.

"5. If ascites co-exist with the tumor.

"6. *Oligocysts* and *Monocysts* are less liable to adhesions, but a large *Monocyst* generally has some adhesions to the omentum.

"7. If the tumor has grown very rapidly, and is not polycystic.

"8. If the tumor is a dermoid cyst.

"9. If no symptoms of inflammation have been observed."

Hydrops Folliculorum or Vesiculorum.—This is the simplest form of ovarian cysts, and is comparatively unimportant, as they seldom attain to any considerable size. They consist of vesicles attached to the ovary, and are seldom discovered before death.

Cystoma Ovarii are divided into the monocysts, polycysts, oligocysts, and struma. The struma is a cysto-colloid degeneration of both ovaries, sometimes reaching the size of a man's fist, or larger, in their entirety; made up of numberless cysts, from the size of a millet-seed to that of a chestnut. The outer sac, or general capsule, is smooth. They are extremely rare, and are of little importance, as they never attain to any considerable size, and the only effect produced is to cause sterility, or produce some symptoms of weight in the pelvis, which are hardly explainable; and, on rectal examination, and sometimes without, are discovered to be caused from an enlargement of the ovary, and this is supposed to be simple hypertrophy of these organs, till death results from some other cause, and a post mortem reveals the real difficulty.

Oligocysts, or Monocysts.—These terms signify the single large cyst. It may contain compartments or division walls apparently showing the cyst to be composed of several smaller cysts; but, upon opening one, it is found that the fluid in the others is also evacuated, showing a free communication be-

tween them. These division walls are caused from a collasping of the walls of the cyst after tapping, and, from some adhesive, inflammatory action; becoming adherent in patches, so as to give somewhat the appearance of a polycystic tumor. The *polycyst* does not become a *monocyst*, as might appear possible; but this occurs from the oligocyst developing within it papillary vegetations, which are thrown out like a cauliflower, which finally adhere to each other, and make division walls in this way. The unilocular cyst, monocyst, or oligocyst, occurs only about one-fourth as often as the *polycyst*, while the *dermoid cyst* is found in only one case in about fifty of ovarian growths.

Ovarian Polycysts.—The polycystic ovarian tumor is the most common form of cystoma with which we have to contend. It is made up of several distinct cysts, of considerable size. They may number but two or twenty or more. If more than one they take the name *polycystic*. The fluid contained within the different cysts varies often. The opening of one cyst by tapping will often apparently produce little effect upon the size of the abdomen, though several quarts of fluid flow away, and the abdomen may feel about as tense as before. This is convincing proof of the polycystic nature of the tumor.

Differential Diagnosis of the Three Forms of Cystoma Ovariana.

MONOCYST, OR OLIGOCYST.	POLYCIST.	DERMOID CYST.
1. Slower growth.	1. Rapid growth.	1. Slow growth.
2. Uncommon.	2. Common.	2. Rare.
3. Health fails late in the disease.	3. Health fails early.	3. Very late.
4. Tumor disappears after tapping.	4. Does not disappear.	4. Disappears only partially.
5. Adhesions uncommon.	5. Adhesions the rule.	5. Common.
6. Fluctuations distinct.	6. Less distinct and circumscribed.	6. Less distinct.
7. Contains epithelial scales.	7. Contains blood pigment.	7. Hairs pathognomonic.

Ascites, with Ovarian Cyst.—The coexistence of ascites with ovarian tumor was formerly thought to indicate carcinoma of the ovary; but that idea is not now entertained.

Disease of the heart, liver, or kidney may tend to produce ascites, and especially is this likely to be the case where the tumor is of large size, and, from its pressure, interferes with the normal circulation in the blood-vessels of these organs. Sometimes the rupture of one of the cysts of a polycystic tumor may produce peritonitis; or peritonitis may result from other causes, and effusion of serous fluid into the peritonæal cavity may complicate a case of ovarian cystoma. It, of course, increases the gravity of the case.

The Pedicle.—It is sometimes important to be able to determine the length of the pedicle of an ovarian tumor, as we may feel more free to operate in case of a long pedicle than a short one. The long pedicle is indicated if the index finger in the vagina can detect no part of the tumor, and if the uterus is freely movable independent of the tumor. The opposite symptoms will indicate the short pedicle.

Fibrous Tumors of the Ovary.—These are very rare. Kiwisch notes but two cases; Peaslee only two; Klob one case; Scanzoni four. They are really hypertrophies of the ovarian stroma. They are usually of a size varying from an orange to a cocoa-nut. They can seldom require treatment.

Enchondroma and Osteoma.—Of these varieties of solid ovarian tumors we will simply say, they are very rare, only two cases of *enchondroma* being on record, reported by Kiwisch, and are both doubtful. *Osteoma* consists of a deposit of bone in a fibroid.

Carcinoma of the Ovaries.—This disease spares no period of life except childhood. Cancer usually affects both ovaries, and most frequently commences in the uterus, and affects the ovaries secondarily. As a primary affection of the ovary it is very rare. It sometimes attains to considerable size. Lebert gives a case where the the *carcinoma* weighed eleven pounds, and Dr. Brown, of New York, had a case in which the diseased mass weighed nineteen pounds. We have in connection with cancer of the ovaries the usual cancerous

cachexia, as when it affects other parts or organs. The disease may be hereditary or acquired. It will not call for ovariotomy, but may be removed in connection with extirpation of the uterus entire. (See extirpation of uterus.)

Papilloma of the Ovary are also very rare and unimportant. They arise from the corpus luteum, and consist of small vascular, vilous, or sometimes fibrous bodies of the size of a pea, pedunculated.

Cyst of the Broad Ligament.—Cyst of the broad ligament is of slow development, is most usual in young women, and is likely to be confounded with ovarian cystoma. A single cyst has been known to contain forty pounds of fluid. Boinet speaks of their development from 1. The areolar tissue of the broad ligament; 2. The parovarium; 3. The vessels of the pampiniform plexus. The cyst of the broad ligament occupies a position lower in the pelvis than ovarian cysts, and is more readily felt in making a vaginal examination. Tapping causes complete collapse of the tumor.

Hydrosalpinx, or Dropsy of the Fallopian Tube.—Cases of enormous distension of the fallopian tube have been reported. Such cases, though very rare, are well calculated to be mistaken for ovarian cyst. Peaslee reports cases where the tube contained 130 and 150 pounds of fluid respectively. De Haen reports a case where there were 32 pounds of fluid in the tube. The color of the fluid in these cases is very clear and limpid. Although I have not seen a case of *hydrosalpinx*, I fear some error in diagnosis has been allowed to be reported, for I do not see how the tube can be so enormously distended without causing rupture. I believe that in tubal pregnancy the development of the fœtus never exceeds four months before producing rupture of the tube. I am inclined to the belief that these cases called dropsy of the fallopian tube are cysts developed exterior to the tube proper, but under the peritonæal covering of the tube. Dr. Farre* also doubts

* Page 36.

the capacity of the tube to undergo such extreme distension. De Haen states that the tube itself, in his case, weighed seven pounds. I doubt that the "seven pounds of tube" was really the hypertrophied tube; but I am inclined to think it was like Dr. Peaslee's* case which he considers dropsy of the fallopian tube. He says of the autopsy, "There was no pedicle, and no trace of the left fallopian tube or left ovary." Now, has he not as good reason to say the tumor was ovarian as tubal? There was a cyst, and a fibrous mass, which included the ovary and fallopian tube. Doubtless the case was fungoid, complicated with ovarian cystoma.

Fibro-cyst of the Uterus.—This disease has only recently been recognized. Only fourteen cases had been reported up to 1869. Their development is much slower than ovarian cysts. They may be interstitial, or sub-peritonæal. *Fibro-cysts* of the *uterus* occur only about one-fiftieth as often as ovarian cystoma. They may develop as cysts within, or attached to a uterine fibroid, or as cysts attached directly to the uterus. They may be single or multiple. The fluid in these cysts is spontaneously coagulable.

Cysts of the Mesenteric Glands.—Serous cysts of the mesentery sometimes form, and are likely to be mistaken for *fibro-cysts* of the *uterus* or ovarian cysts. Their attachment will indicate their nature.

Uterine Fibroma (*Fibrous Tumors of the Uterus.*)—These tumors grow from the surface of the uterus or within its substance, and are fibrous in their structure. They vary in size from an inch in diameter to one weighing one hundred pounds. They occur most frequently in the aged. Their structure is dense, dark, or grayish, and within the fibrous structure are often contained small cavities filled with earthy matter, pus, or blood. They are frequently pedunculated. One or more may exist in the same case.

Intra-mural fibrous growths of the *uterus and fibrous polypi,*

* Peaslee on "Ovarian Tumors," p. 105.

requiring *different treatment, will be spoken of separately.* They have been mistaken for ovarian cystoma. They are more dense and solid, however. In some instances it may be impossible to diagnose them from fibro-cystic tumor of the ovary. They never reach enormous size.

Prognosis.

The probable result of ovarian tumors, if left without treatment, is dubious as regards ovarian cystoma, for nearly all prove fatal in from one to four years—generally in about two years. As regards the solid tumors of the ovary (with the exception of cancer), they have a favorable prognosis without treatment, even if of considerable size. There is occasionally an exceptional case where the patient continues for many years to live and carry about an ovarian cyst (supposed to be), and finally dies of some other disease; but these cases are so rare as to be almost unworthy of mention. Medical treatment has, in a few instances, been reported as curing the disease. Boinet reports one and Professor J. D. Miller, of Chicago, three cases cured after prolonged treatment with *Bromide* and *Iodide of Potassium.* All agree, however, that medical treatment is in most cases useless.

Dermoid cysts continue for a longer period without causing death than the other forms of ovarian tumors. After suitable treatment a large per cent of all forms of ovarian tumors recover.

Treatment.

Remedies have generally been considered about useless, although my own experience has shown (see cases reported under treatment of ovaritis) that enlargements of the ovary do diminish, and sometimes disappear, from the use of remedies.

It has been held, also, that ovariotomy was the only relief, and this idea is entertained by many prominent members of the profession to-day. Ovariotomy, 'tis true, has been very successful in skillful hands, but it is a serious

operation at best, and we are glad to be able to show that in very many cases it is not needed, and that *Iodine injections have cured ninety-three per cent of well selected cases, and about sixty-three per cent of cases taken at random, polycysts included.* Harm seems to have resulted in but six instances, though I have collected three hundred and eleven cases operated on by different gynæcologists in this country, Germany, France, and England. M. Boinet has done more than any other man to demonstrate the great advantage of this treatment. Out of these three hundred and eleven cases collected I find reported cures in one hundred and ninety-seven cases, or about sixty-three per cent, including favorable and unfavorable cases.

It strikes me this is good enough to justify a strong sentiment in favor of this method of treatment of ovarian cystoma; besides, it is shown, from the reports of these cases, that, in the event that this treatment is unsuccessful, the patient is in nearly as good a condition for ovariotomy as without it. Peaslee* asserts they are in as good condition. I can not say as much. I will say, however, that I think that the injury produced by tapping and injecting *Iodine* is not so great as to deter us from attempting a cure in this way in all cases which are clearly monocystic. The puncture or punctures made in tapping may, and often do, cause adhesions, at these points, between the peritonæum and sac (not always, however); and, in so much as they do produce adhesions, they in so far complicate ovariotomy, in case of failure of the injection to cure the case and ovariotomy becoming necessary.

We should also bear in mind that the operation of tapping and injecting the sac is not free from danger, although Boinet had no unpleasant result in a single instance, out of ninety-one selected cases, producing sixty-one cures; and I am sure I have had no unpleasant results following tapping

* Peaslee, p. 209.

and injection with *Iodine* in a single instance, although I have treated but seventeen cases in this way, with recoveries in twelve out of the seventeen. Two died without ovariotomy, one with it performed; two recovered after ovariotomy. Of the twelve cases recovered, three were diagnosed polycystic by myself and others; the other nine were either monocystic or cyst of broad ligament. (I do not claim it is always that we can positively diagnose the difference. The weight of evidence, however, was that they were ovarian.) The polycysts required from seven to fifteen injections each, while the others required only one injection in four cases, and from three to five in the others. On the other hand, some physicians have had a sad experience in tapping ovarian cysts.

In Germany and England, out of two hundred and twenty-five first tappings, forty-eight died, or about twenty-two per cent. Dr. Meigs, of Philadelphia, states that nearly one-half of the first tappings of ovarian tumors which he had witnessed had proved fatal. Dr. Peaslee* says that "I learn from several of the most experienced ovariotomists of this and other countries that they do not consider tapping an ovarian cyst a dangerous operation."

Here is a conflict of testimony. Can we ascertain why it is so harmless with one and so destructive with another? Without casting any reflections upon those who have been unfortunate in their cases (for misfortune comes to us all in some shape), let us inquire from what causes a patient is likely to die in case of tapping of the sac, in case of ovarian cystoma. 1st. She might die from peritonitis; 2d. From hemorrhage; 3d. From shock. Knowing the danger of peritonitis, the operator should use every means possible to avoid accidental cold after the operation, and see to it that the system is in as good condition as possible before the operation.

* Peaslee, p. 197.

The danger from *hemorrhage* is greater in *polycysts* than in *monocysts*, as the walls of the cysts are more vascular; and there is more danger from this source, in operating *per vaginam*, than through the abdominal walls. The operation should not be attempted through the vagina unless the tumor can be clearly felt fluctuating there.

As to danger from shock, it is to be avoided by attention to the maintenance of pressure, as I will mention presently in describing the operation.

I can not rid myself of the idea that, possibly, want of attention to some of these points may have caused some of these fatal cases, though I must acknowledge that bad results may sométimes follow ordinarily simple operations, even when the greatest care is exercised, not only in tapping, but in any operation in surgery.

Strength of Iodine Solution to be Used.—A *Solution of Iodine* made with ʒi of *Iodine res.* and ʒi *Potass. iodide* to the ʒi of water, is the most desirable form and strength to be used, although in some instances this solution, diluted with water one-half, is sufficiently strong. The use of ordinary *Tr. Iodine* is, to my mind, open to some serious objection. If the sac has not been completely emptied before the injection is used, the fluid in the sac might so much dilute the *Tr.* as to allow of the deposit of the *solid Iodine* on the walls of the sac, which might irritate them too much at the points where the *Iodine* is deposited, and cause active inflammation. Dr. Byford's suggestion to use *twenty grs.* of *Iodine* with *forty grs. Iod. potass.* to the ounce of water is open to the same objection, as it requires *three grs.* of *Iodide of Potassium* to hold *one gr.* of *Iodine* in *solution.* The *Tr. Iodine compositus* I much prefer to the ordinary *Tr.* The temperature of the injection should be not too low nor too high, from 80° to 85° being the best.

In making the puncture, care must be exercised to insert the trocar at a point where the tumor presses directly against

the abdominal walls, and, if there be adhesion between the sac and abdominal walls, all the better. Percussion should always be made over the point we desire to puncture. If resonant, avoid that point, as resonance will indicate that some part of the intestines intervene between the tumor and the abdominal wall. A point midway between the umbilicus and pubis, in the median line, is usually the most desirable place for puncture, although other points may be selected in some instances. I prefer not to make an incision in the skin before inserting the trocar, as without it we get a better closure of the skin over the puncture.

The patient may sit in a semi-inclined position, or lie upon the side. There should be a free circulation of pure air in the room; and the abdomen must be compressed steadily. This is best accomplished with a piece of muslin two and a half yards long and about eighteen inches in width, torn down at both ends into strips about four inches wide, like a many-tailed bandage, leaving about two feet of the center untorn. This should be passed around the body, and the strips interlocked, and gentle tension should be made by an assistant on either side of the patient. This keeps up the pressure upon the abdominal organs, and prevents the collapse which might otherwise follow the sudden withdrawal of a large amount of fluid from the abdomen.

In case the cyst can be reached *per vaginam*, and is felt as a fluctuating tumor there, it is better to puncture and inject in this locality.

It has been suggested that the sac be washed out with warm water. This I do not consider necessary; and, as it prolongs the operation, it is, in that much at least, objectionable.

The quantity of fluid injected should be at least eight ounces, that it may come in contact with the entire internal surface of the sac. This should be aided, also, by turning the patient from side to side, while all the *Iodine* is in the

cyst and the compression is still maintained. After allowing the injection to remain about five minutes, we may permit it to flow away; and, if the puncture is made in the vagina, the canula may remain and be held in position by the introduction of a good-sized sponge into the vagina, so as to press upon the canula. This should be removed, cleansed, and replaced, or a new one substituted, every twelve hours for two or three days, when the canula should be removed. In puncturing through the abdominal walls I would not allow the canula to remain, but remove it at once. The instant the injection ceased to flow away, place a piece of adhesive plaster over the puncture, and pin a bandage tightly about the abdomen to maintain pressure.

Use of the Gum-elastic Tube.—It is recommended, by Boinet and Simpson, that a gum-elastic tube be passed through the canula, when a considerable part of the fluid had been evacuated, the canula withdrawn, and that the injection be made through the tube. I object to this on the ground that the elastic tube must be smaller than the canula in order that it can be inserted, and, consequently, the puncture into the sac will be larger than the tube, and will allow of the escape of the fluid or injection into the peritonæal cavity, especially if the puncture is made through the abdominal walls. In case we puncture through the vagina, there is not the same objection, as it is the most dependent portion of the sac; but even here we get along better with the canula alone, as it is firmly grasped by the tissues through which it passes, and is retained more easily than a smaller tube could be.

Repeated Injections.—In case the cyst should refill, and we feel sure that the tumor is monocystic, we should repeat the operation as before, using a stronger injection the second time.

Wine as an Injection.—Wine has been used as an injection into ovarian cysts; with such poor results, however, as to justify its rejection for this purpose.

Modus Operandi of Iodine Injections.—*Iodine* seems to possess the property of causing *adhesive inflammation*, and not producing suppuration, unless it is used in such a way as to be escharotic. By *adhesive inflammation* we mean that when the *Iodine* is injected into the ovarian cyst it produces such an irritation as to cause enlargement of the mucous follicles of the sac, which spring up like granulations upon an inflamed conjunctiva, and if these are brought into co-aptation, adhesion results, and a consequent obliteration of the sac is induced, as in hydrocele when *Iodine* is injected in that disease.

Iodine Injections into Ovarian Cysts not Painful.—There is no call for placing the patient under an anæsthetic for the operation of tapping and injecting a *Solu. of Iodine*. Boinet, with the skill which his large experience has given, says "no pain is experienced when the injection is thrown into an ovarian sac" (he has performed the operation over one thousand times); but if it escapes into the peritonæal cavity it produces great pain and severe peritonitis.

Electrolysis.—Electricity has proven a curative agent in the hand of Fieber,* and he reports a striking case of cure of ovarian cyst by this treatment, and his report is corroborated by C. Braun and reported by Schroeder.† Here is a wide and inviting field open for investigation and experiment. At present we can say nothing against the treatment, and only this much for it.

Formation of a Permanent Opening into the Cyst.—In 1836 Ledran made an incision into an ovarian cyst, and kept it open with pledgets of lint and a canula of sheet-lead for five months, and the patient recovered. Another case treated the same way continued to discharge from the artificial opening thus made for upwards of two years; but finally recovered. In 1824 Récamier proposed to cause adhesion of the cyst to the abdominal wall by the application of *Caustic potassa*, and

*Wien Med. Pr. 1871. No. 15.

†Ziemssen's Cyclopædia, Vol. X, page 404.

then make the incision, as Ledran had done. Mr. Bryant, of St. Thomas's Hospital, reports two cases treated successfully in this manner. This method has, at the present day, no adherents, that I am aware of.

The tapping of the cyst in the usual manner, leaving the canula or gum-elastic tube in the puncture (by which means the fluid in the sac is allowed to be discharged), and using injections of a *Solution of Iodine*, to excite adhesive inflammation, is the plan now in favor. Dr. E. Noeggerath,* of New York, tabulates fifty-three cases of operations of this kind, viz:

CURED.	DIED.	DISEASE RETURNED.	UNDECIDED.
34	14	4	1

Dr. Noeggerath also recommends the evacuation of the cyst by means of a free incision through the vaginal wall posterior to the os uteri, and stitching the incised vaginal and cystic tissues back so as to cause a permanent opening, and washing out the sac daily with antiseptic injections. This operation he terms "*ovariocentesis vaginalis.*" He reports five out of six cases successful, five of which were polycysts.

Spontaneous Rupture of the Cyst.—Dr. Simpson has succeeded, in one case, in curing his patient by rupturing the cyst, and allowing the fluid to pass into the cavity of the abdomen. He was encouraged to do this from the fact of some patients recovering after spontaneous or accidental rupture of the cyst (probably most of them were cyst of the broad ligament). Dr. Tilt has collated seventy cases of spontaneous rupture of the cyst, with forty recoveries, or over fifty-seven per cent. Before proceeding to rupture a cyst, it would be better to aspirate a part of it at least, and see if the fluid is clear, bland, and transparent in character. If so, we may have little fear of its producing peritonitis.

* Peaslee, p. 220.

If, on the contrary, it is a dark, thick fluid, we may expect its escape into the peritonæum will produce serious, and probably fatal, results; and, of course, the operation should not be attempted in this class of cases. I will frankly state that I do not see the advantage of this treatment over tapping and injecting a *Solution of Iodine;* for it strikes me that it is better to evacuate the cyst by aspirating it than to allow it to drain off into the abdominal cavity. I think there can be little dispute on this point; hence, we can not recommend rupturing the cyst in any instance.

CHAPTER XXV.

OVARIOTOMY.

The removal of the diseased ovary or ovaries by surgical operation is termed *ovariotomy*. The diseased mass may be removed through the abdominal walls or the vagina. This diseased mass, arising from, or connected with, the ovary, is found to be cystic, or fibro-cystic, in ninety-five per cent of all cases of ovarian tumors.

HISTORY OF OVARIOTOMY.

To Dr. Ephraim M'Dowell, late of Danville, Kentucky, belongs the honor of having performed the first operation for ovariotomy. This he did in October, 1809. His first three cases were published in 1816. Two years after Dr. Chrysmar, of Würtemburg, performed the operation—the first which had been performed in Europe. His first was unsuccessful; the second, performed a year later, was successful. Dr. E. M'Dowell shared the responsibility of his first operation with Dr. Jas. M'Dowell, his nephew, he making the first incision, though the balance of the operation was performed by Dr. E. M'Dowell, assisted by Dr. Jas. M'Dowell. The report of this first case was published in the *Eclectic Repertory* and *Analytical Review* for October, 1816. The operation was performed upon a Mrs. Crawford in 1809, who lived till 1841.

The second successful ovariotomist in this country was Dr. Nathan Smith, of New Haven, who performed the operation in Vermont, July 5, 1821, he not being aware of Dr. M'Dowell's operation at that time. His operation was also successful.

Now, over one thousand operations for ovariotomy have been performed in the United States, with a record of recoveries amounting to about seventy per cent.

In France, the first operation for ovariotomy was performed by Dr. Woyerkowsky, in April, 1844. This case was also successful. In Russia, Sweden, Germany, France, Australia, Italy, and England, the operation is practiced as a standard operation; while in Ireland, it is seldom performed. In Belgium, *Iodine* injections are most extensively used.

The operation has met with violent opposition in this country and Europe, and it has been only within the last quarter of a century that the operation has been countenanced generally. Of late years, the sentiment in its favor has been very strong in this country and Europe, with the exception of Belgium and Ireland. Skilled operators have reached an average of success in about seventy-eight per cent of their cases, while, if we include in our figures all the operations recorded, the average per cent of recoveries drops to about fifty. At the present time there have been probably over five thousand ovariotomies performed in the world.

As to precedence in the operation, there has been some dispute, some having claimed that Dr. M'Dowell was not the first to perform the operation, Dr. Robert Houstoun, of Glasgow, having in 1701 made an incision into an ovarian cyst, and evacuated its contents; but he did not remove the cyst, and his operation could only be called "ovarian section." In 1782 Laumonier* operated on a case which has been claimed as one of ovariotomy. Kœberlé and Boinet, however, assert that Laumonier's operation was not one of ovariotomy, but a case of dropsy of the fallopian tube, complicated with ovaritis. The ovary was as large as an egg.

The ovaries were removed, however, in a healthy state hundreds of years before Dr. M'Dowell's operation. We are

*"Histoire de la Société Royale de Médecine," 1782, tome v.

told by De Graaf* that a Hungarian sow gelder removed the ovaries from his daughter (being disgusted with her lewdness) more than two hundred years since; and it is a matter of history that certain kings of Lydia had the ovaries of women extirpated for their service or pleasure, using them instead of eunuchs as servants. Gyges hoped thereby to establish their perpetual youth. We have no record of the per cent of the success of the operation, and it could not be considered ovariotomy as now accepted, but rather spaying.

OBJECTIONS TO OVARIOTOMY.

It has been urged against ovariotomy that it was too dangerous an operation, that the statistics in its favor are unreliable, that palliative treatment by medicine or tapping might prolong life indefinitely, that even if the operation is successful in removing one ovary the other may become affected. To-day, these objections have little weight; the danger of the operation is yearly becoming less, owing to more skillful management. In fact, when we note the roughness of the operation, as detailed by Dr. M'Dowell, in his first cases, we are filled with wonder that either recovered.

The delay of the operation till the disease was too far advanced, and till the pressure upon the abdominal organs had too much disturbed the general health, has doubtless been the cause of some fatality. But now, that the operation is sanctioned by the best authority, it is not delayed as formerly, and the care exercised to prevent peritonitis and secondary hemorrhage is such as to add largely to the success of the operation.

The statistics, doubtless, are as correct in regard to this operation as any other. As to relief from medicines I believe but thirteen cases are on record where a cure is claimed from

*De Mul "Organ Generat. tract. Nov. Cap. xiii."

internal medication, and doubtless some of these cases were erroneously diagnosed. Not over five *per cent* of cases of tapping have proven curative. Tapping, with injections of *Iodine*, have proven very successful, it is true. According to statistics laid before the French Academy of Medicine,* about three-fifths of the cases were cured by *Iodine injections*. Boinet had sixty-two cures and twenty-two failures, and sixteen deaths out of his first one hundred cases. He does not, however, attribute any death to the operation, for he says "the operation did not produce any unpleasant result in a single instance." Simple tapping seems to be very unpromising of good results; but the injection of *Iodine* in connection with tapping offers a treatment full of promise, especially in monocysts. The operation of ovariotomy is, then, to be confined mainly to the removal of poly-cystic and dermoid cysts; fibrous, and fibro-cystic tumors of the ovary.

WHEN SHOULD THE OPERATION BE PERFORMED?

Dr. Clay, Dr. Bryant, Drs. Black and I. B. Brown prefer to operate as early as possible, about as soon as the diagnosis is made out; while Drs. Atlee, Bradford, Keith, Smith, and T. S. Wells, as well as Dr. E. R. Peaslee, speak in favor of waiting till the disease is well advanced, though not to the extent of very severe impairment of the general health. It is best to wait till we see evidences of serious danger to the patient if the tumor longer remains, for occasionally a case occurs where many years pass (sometimes two or more) without deranging the general health to any great extent, and it is not advisable to jeopardize the patient's life by an operation which, if left unperformed, might possibly have permitted the patient to live in the enjoyment of comparative health for some time to come, while the operation might cut her life short at once.

* Peaslee, page 267.

CAUSES OF DEATH AFTER OVARIOTOMY.

The result of one hundred and fifty cases of ovariotomy, collected by Dr. Peaslee, showed ninety-nine successful operations and fifty-one deaths. The direct cause of death in these fifty-one cases he tabulates as follows:

Peritonitis	12 or 23.53	per cent.
Septicæmia	9 or 17.65	"
Shock	7 or 13.72	"
Exhaustion	7 or 13.72	"
Shock and Septicæmia	1 or 1.96	"
Hemorrhage	1 or 1.96	"
Strangulation of intestines in womb	1 or 1.96	"
Diarrhœa	1 or 1.96	"
Erysipelas	1 or 1.96	"
Tetanus	1 or 1.96	"
Ulceration through bladder	1 or 1.96	"
Unknown	9 or 17.64	"
	51	

These figures would be modified very much if we take in a larger scope. Thus, in two hundred and thirty-four cases of death from ovariotomy, occurring in Great Britain, Germany, France, and the United States,—

96 were from peritonitis;
33 from hemorrhage;
15 from collapse;
90 from all other causes.

Total, 234 cases.

AFTER OPENING THE ABDOMEN, WHEN SHOULD THE OPERATION BE ABANDONED?

Before commencing an operation, it is always well to be prepared for all the emergencies that may arise, as well as the complications with which we may meet. Surgeons of large experience have been mistaken in their diagnosis of ovarian tumors, as has been mentioned while speaking of differential diagnosis. In case the abdomen is opened, and it is then found that we have a solid tumor of the spleen, liver, mesentery, or kidney, it is best to close the incision imme-

diately, and suspend the operation. If it be a cyst of the kidney, spleen, liver, or a uterine fibro-cyst, non-pedunculated, we may tap the cyst, inject a *Solution of Iodine*, and close the wound. In case of the uterine tumor having a moderately-sized pedicle, we may proceed to remove it, if there are not very extensive adhesions. If the tumor prove to be cyst of the broad ligament, simple tapping is all that is required. It is but seldom necessary to abandon an operation on account of adhesions; for if the operation be abandoned the patient is liable to die from the result of the incision (about thirty per cent dying under these circumstances) very soon after the operation, while those who live, or rather recover from the operation, are left to die before long from the tumor. Hence, it is generally as well to proceed with the operation, even if the adhesions require ligature, although 70 per cent die if adhesions are so strong as to require ligature.

PREPARATORY TREATMENT.

Operators differ greatly upon this point. Some undertake the operation with little or no regard to the condition of the patient, while others attach much importance to the necessity for some preparatory treatment. We may lay down the general rule, however, that it is better that the digestive and assimilative process should be in as healthy a condition as possible at the time of the operation; that the bowels be freely evacuated with soap-and-water enemæ, and, in obstinate cases, with some saline waters; that nourishing, easily digested food should be given for some time before the operation. *Subnitrate of bismuth*, given in three gr. doses every three hours, for twenty-four hours before the operation, is advisable in case there is much tympanites in any portion of the abdomen. It is of considerable importance to secure free action of the skin. The operation should not be attempted while the skin is hot and dry. In this condition it is better to give *Aconite* 3^{x} every three hours, till some slight perspiration is

established. The giving of *Acon.* for three or four days previous to the operation, in most cases, is a good practice, giving it at intervals of four to six hours. It has a great tendency to prevent inflammatory action. Dr. T. G. Thomas gives opium, in one gr. doses, for four days previous to the operation, at intervals of six hours. This treatment has the objection that the opium has a constipating effect upon the bowels just at a time when we desire their free evacuation.

WHEN THE OPERATION IS IMPROPER.

1. While the patient is in the enjoyment of good general health no operation should be advised.

2. Not till tapping and injections of *Solution of Iodine* have demonstrated that these means are inadequate.

3. When there is organic disease of the lungs, heart, liver, kidneys, or bowels, cancer of the breast, stomach, or other parts of the body.

4. The operation should not be performed during the prevalence of an epidemic of any kind in the immediate vicinity.

5. When the tumor is evidently malignant.

6. When the patient is so weak from any cause as to make it very doubtful whether or not she is able to withstand the shock of the operation.

PREPARATION NEEDFUL TO BE ATTENDED TO ON THE PART OF THE OPERATOR AND FRIENDS.

1. The Time of the Year.—Both the hottest and coldest temperature should be avoided. The clear, moderately cool atmosphere is the best.

2. Place.—The healthful suburb of a city is, perhaps, the most desirable, as the patient is then within easy calling distance of the surgeon, while, if we operate in the country, we must trust the care of these cases to some assistant. Avoid operating in a *large hospital*, as the air can hardly be as pure here as in the *small hospital* or private house.

3. Temperature of the Room.—While the operation is progressing the temperature of the apartment should be maintained at 78° or 80°; but as soon as the incision is closed and dressings applied, the temperature should be lowered to 68° or 70°. The apartment should be quiet, large, and capable of the best of ventilation. The spray apparatus (see Plate XI) is recommended, which throws a spray into the room, impregnated generally with a small amount of carbolic acid. This does well; but, in case we have not the apparatus, a cup of water may be placed upon the stove, if the weather be cool and needing fire, and a tea-spoonful of *Comp. tr. Iodine* or *Carbol ac.* added to it, that the vapor of *Iodine* or *Acid* may permeate the air of the room.

Suitable Dress.—The patient should be warmly dressed in flannel, with woolen stockings on the feet.

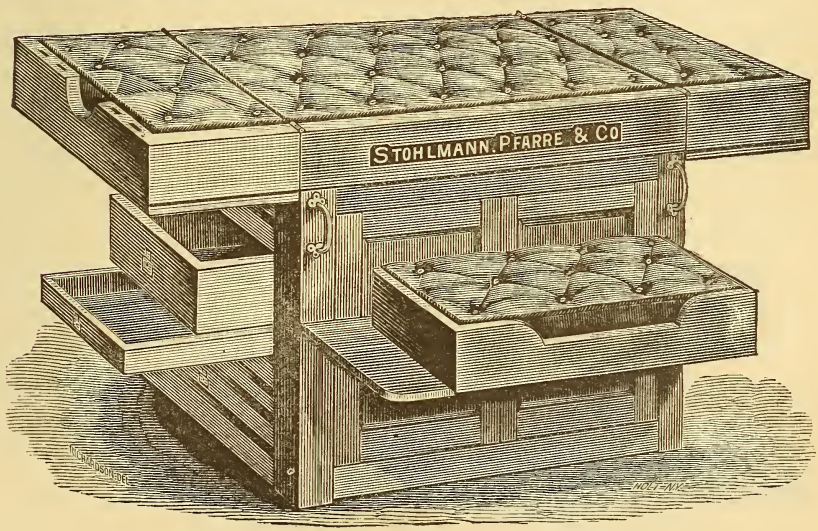


Fig. No. 21.—Operating Table.

Operating Table, Instruments, Etc.—A suitable operating table is convenient. It should be high enough, so that the operator will have to bend over the patient very little, or none at all. It should be six feet long and about two

feet wide. It is a great convenience to have a little room on the table not fully occupied by the patient. The table should be covered with India-rubber cloth, placed over a folded quilt or pair of blankets, with hair pillow for the head. It is well to have the India-rubber cloth covered with a flannel blanket, so folded as to wrap around the lower limbs and keep them warm.

The surgeon, before commencing the operation, will observe that he is provided with eight or ten assorted sponges, well cleansed, and examined that they contain no small bits of shell or rough points. It is well that they be moistened with a weak solution of carbolic acid two days before they are needed. Three or four basins of water, both warm and cold, should be at hand; and it is better that we use cistern-water, filtered, for this purpose, that by no means there may be sand or small, rough particles in the water, which might prove irritating. A small tub and bucket, with a dozen or more towels, two old sheets, some extra pieces of flannel and several pairs of flannel blankets, should be at hand. The bed upon which the patient is to remain should also be in the room, standing convenient to the operating table (though it may be brought in afterwards, if the room is small).

The instruments needed should be selected in an adjoining room (so as not to disturb the patient), and placed on a tray and covered with a towel before they are taken into the presence of the patient. They should consist of three or four different sized scalpels, dressing, dissecting, artery, and hooked forceps, one grooved director, straight and curved scissors, two or three tenaculums, two trocars (one being long and curved), chain ecraseur, one steel male sound, three or four strong retractors, one uter-

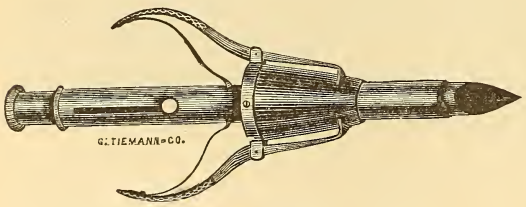


FIG. No. 22.—SPENCER WELLS' TROCAR.

ine sound, female catheter, eight or ten needles threaded with carbolized silk thread, and three or four threaded with silver wire; also several pieces of saddler's silk for ligatures (waxed), some cat-gut string for the pedicle, and a clamp, in case it seemed best to use it. (See also Plate XV.)

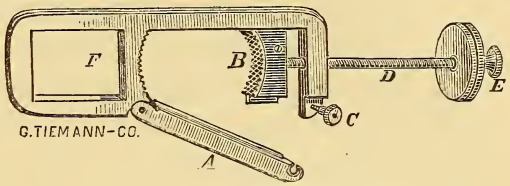


FIG. NO. 23.—DAWSON'S CLAMP MODIFIED.

Extra pieces of rubber cloth, adhesive plaster, artificial serum, bottle of solution of *Persulphate of Iron*, and *Chloroform*, or *Sulph. Ether* should also be in readiness. A little wine, brandy, or whisky should be at hand, as well as ammonia, a can or bag of oxygen gas, and a bottle of *Nit. Amyle.*

THE METHOD OF PERFORMING OVARIOTOMY.

The patient is now placed upon the operating table with only a small pillow under the head. (Some authors have recommended a large pillow, or even two or three pillows, placing the patient in a semi-recumbent position, which is very objectionable on account of the anæsthetic, it being much more unsafe to use any anæsthetic while the patient is semi-recumbent than in the recumbent position.) Four assistants should be at hand, three of whom should be skilled surgeons, the other may be a student or nurse, who will be found useful to hand what is required, regulate the temperature of the room, etc.

The administration of the anæsthetic should be entrusted to none but a skilled and experienced surgeon, as very much depends upon its proper administration, and the operator and two assistants should feel that they are obliged to have no care about the anæsthetic. The physician giving the anæsthetic should know when complete anæsthesia is required, and when it will do to allow it to be partial; when to use *Ammonia* or *Oxygen* to revive her, etc.

The patient is now brought fully under the influence of the *anæsthetic*, and every thing being in readiness the first incision should be made through the skin in the direct line of the linea alba, commencing a little below and a half inch to one side of the umbilicus, and extending downwards to within an inch of the pubis, in case we perform gastronomy, which is the usual operation, and is the necessary one, if the tumor is of any considerable size.

After making the first incision with the scalpel, which may penetrate somewhat into the adipose tissue (if there is any), we pass the grooved director under successive layers of fascia and muscular tissue, and incise with the edge of the scalpel, away from the patient, till the peritonæum is reached, when it should be seized with the hook forceps and an incision made in it with a sharp pointed, straight scissors after the arrest of any hemorrhage. Into this cut made with the scissors I prefer to insert the index finger of the left hand, and explore for adhesions in the line I desire to incise the peritonæum; and if I find adhesions make the incision to one side of them, if possible, using the finger so inserted as a director, making the incision through the peritonæum in length to correspond to the external cut. We now bring the tumor into view by separating the lips of the incision.

The next step is to explore for adhesions, and make out a clearer diagnosis of the tumor; then tap the cyst (if it

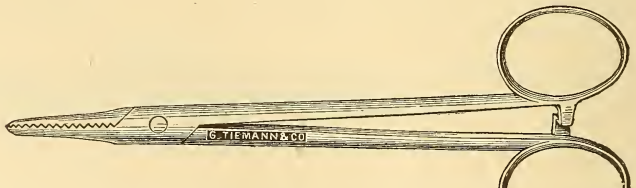


Fig. No. 24.—Spencer Wells' Artery Forceps.

be one) with Spencer Wells' trocar; detach adhesions; ligate the pedicle; remove the tumor; arrest the hemorrhage,

by torsion or ligation of the bleeding vessels; examine the other ovary, and remove it if required; cleanse the peritonæal cavity; close the incision; apply proper dressing; see the patient placed properly in bed, and returned to consciousness. It is sometimes best to tap the cyst, or cysts, if there be more than one of any size, before exploring much for adhesions, as it often is of so large a size as to be very difficult of examination before tapping.

Before inserting the trocar place a small elastic band over the instrument, and have it strong enough to clasp it firmly; then sieze the sac with a pair of hook forceps, draw it out

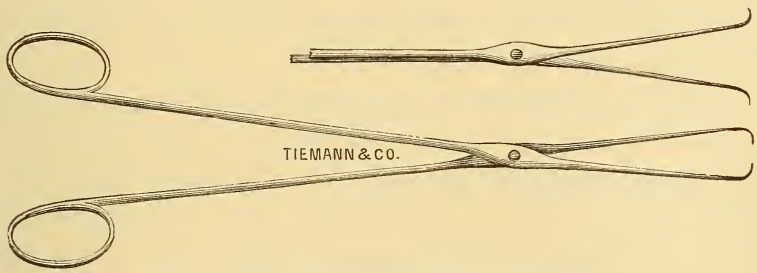


Fig. No. 25.—Double Tenaculum Forceps.

a little, and, after turning the patient well on the side, plunge in the trocar, and, as soon as some portion of the fluid has passed out, draw the sac up around the canula, sieze it with the hooks, draw it back, and slip over it the elastic band, so as to grasp the walls of the sac, and hold the canula firmly. In this manner no fluid from the sac need escape into the abdominal cavity.

We now sieze the sac, and ascertain if our incision is large enough to easily extract the mass after evacuating the cysts. If not, then we may extend it upwards as high as necessary, using two fingers passed up between the tumor and the peritonæum, and making the cut through all the tissues at once.

We now arrest any hemorrhage caused by this second incision, and proceed to find and divide any adhesions

between the tumor and the surrounding parts, breaking off the adhesions with the fingers, if it can be done without using very great force. If not, a small silk ligature may be applied firmly, cut short, and left in the abdomen (or left long if near the incision). This is very generally necessary in case of the adhesion of the omentum; or we may cut out a piece of the sac, and leave it attached in the abdomen.

If, on tapping the sac, we find its contents too thick to run out through the canula, we may, after enlarging the incision in the abdominal walls (to the greatest possible extent), turn the patient on the side, as for tapping the sac, and, lifting the tumor out of the abdominal cavity as much as possible, proceed to make a free incision into it, and turn out its contents.

If it is of sufficient size so as to seriously interfere with getting at and tying the pedicle, after emptying one cyst in this manner, by free incision, and finding the tumor to be multilocular, it is best to divide the walls of the other cysts, so as to allow of the discharge of these other cysts, also, through this first one incised.

The recommendation of some authors to immediately sponge out any fluid or blood which escapes into the abdominal cavity is a poor practice. It irritates the peritonæum much more to keep wiping it out than it does to allow the fluid to remain till the tumor is separated from the pedicle, and have the whole cleansing performed at once; besides, the practice of frequent sponging delays the operation very materially, and is objectionable in this respect as well as on account of the irritation it is calculated to produce. Of course, in case we tear a blood-vessel, and torsion does not at once arrest the hemorrhage, we must stop and apply a fine silk ligature to the bleeding vessel, cutting it short, as before mentioned.

In case we find, after opening the abdomen, that we have a case of a considerable fibrous mass in connection with the

cyst, we find advantage in passing the male sound all around the tumor to discover at what point and to what extent we have adhesions to contend with. If they are so extensive as to make it impossible to separate them and remove the mass, we may proceed to evacuate the cysts in the manner described; and, if the tumor, or rather the cyst wall, is not very vascular, we may ligate some parts of it, and cut it away, sponging out the remaining portion of the cysts with *Comp. Tr. Iodine* or *Solution of Iodine*. Carefully sponge out the cavity of the abdomen with warm water or warm artificial serum, to which a few drops of *Carbolic acid* has been added, and then close the incision as rapidly as possible.

In case we find that the adhesions can be broken up, or are not very numerous which require ligation, we proceed to carefully divide all the attachments and lift the tumor out of the abdomen.

We now examine the pedicle. If it is not larger than a man's finger, it may be ligated as a whole; while, if of greater size, a double ligature should be used, placing the ligature in either instance about an inch from the bulk of the tumor. This ligature for the pedicle must be strong catgut, whip cord, or extremely strong silk ligature (I prefer the catgut), tie it tightly in three knots so as to avoid the possibility of its slipping. (These ligatures, as well as all those used in the operation, should have a previous preparation by being wet with a weak solution of carbolic acid.) The ends of the ligature may now be seized by an assistant, and the chain ecraseur thrown around the pedicle close to the tumor, so as to allow about an inch of pedicle beyond the ligature; screw down the ecraseur, and thereby divide the tumor from the pedicle. We should next sponge the end of the pedicle with warm, carbolized water, holding it out of the cavity of the abdomen if it can be done without using too much traction (which is to be avoided).

After we see that the ligature is firm and that there is

no oozing of fluids, we proceed to examine the other ovary, and, if found diseased, it should be at once removed by ligating its attachment and removing it with the ecraseur as before. If not diseased, of course it should remain, as it may perform its function well, and the patient by its aid may bear fruit thereafter, which would be impossible if both ovaries were removed.

We now sponge carefully all the secretions from the abdominal cavity, cleansing the sponges in carbolized warm water or artificial serum of a temperature as high as 96° or 98°.

FIG. No. 26.—SIMS' SPONGE HOLDER.

When we are sure we have cleansed the peritonæal cavity of all blood or other foreign substances as carefully and with as much gentleness and dexterity as possible, and we ascertain there is no small twig of a blood-vessel lacerated, bleeding, and overlooked, we proceed to cut off the ligatures surrounding the pedicle within about an inch of the knot and drop the ligated pedicle gently into the abdomen and proceed to close the incision with interrupted suture of silver wire of good size, or tolerably stout silk thread (I much prefer the silver wire), have the needles threaded with long enough wire so that we have plenty of it, so as not to be inconvenienced on account of its shortness. The open-eyed needle is most convenient. The assistants should hold the parts in apposition as well as possible; the stitches should be set back about one-half inch from the cut, and should dip down to, and include, the peritonæum (this was not formerly done; but it is now the more general practice). The stitches should be placed at intervals of about three-fourths of an inch. The silver wire should be well twisted,

FIG. No. 27.—OPEN-EYED NEEDLE.

cut off rather short, and bent down smoothly upon the abdomen.

After the sutures are adjusted, the intervals between the sutures should be covered with long strips of adhesive plaster reaching at least one-half around the body. Then apply other strips upon these, which need only be four or five inches long, and let them cover the sutures, so that the entire incision is hidden from view; and, of course, atmospheric air is perfectly excluded if the adhesive plasters are properly adjusted (during the application of the plaster the anæsthetic should be entirely suspended). When we desire to examine the wound we have only to raise one end of some of the short pieces of plaster, and when we desire to remove the sutures one of the short pieces of adhesive plaster may be raised, the suture cut and removed, and the adhesive plasters immediately replaced, one by one, till all are removed. The long pieces of plaster should remain for a week or more, and when removed should be replaced by others at once one by one.

After applying the adhesive plaster in the manner described, a compress of flannel (about four thicknesses) should be applied over the abdomen, and a cotton roller or bandage applied around the body to support the abdomen and hold the compress evenly and tightly.

The patient should be now placed in bed, and, on the return of consciousness, a powder of the 3^{x} of *Nux* may be given. Unless full reaction sets in, it should be repeated every hour till it is established. Avoid stimulants and opiates. Then *Aconite*, given every three or four hours, should be administered, and, if pain is complained of, give *Arnica* in alternation. The thighs should be flexed to remove tension from the abdominal muscles, and the limbs should be supported with pillows, and a rubber bag, filled with warm water, placed against the soles of the feet. Soups, porridge, thickened milk, custard, bread and milk,

oat-meal gruel, etc., should constitute the diet for a week or more. No solid food should be allowed, and no applications should be made to the abdomen except those already mentioned. Wetting the compress with water or *Arnica* is not necessary, and is calculated to loosen the adhesive plaster, and makes the patient more liable to take cold, and had better be avoided.

DIFFERENT METHODS OF OPERATING.

The incision which is now almost, if not quite, universally made near the median line in the linea alba, was formerly made obliquely at the side of the abdomen. This was the place of the incision made by Dr. M'Dowell on his first operation, following a line in the direction of the fibers of the external oblique muscle.

Treatment of the Pedicle.

The various means used by operators to secure the pedicle are more diverse than is any other part of the operation.

The pedicle is tied by some, and one or both ends of the ligature are brought out of the incision at its lower portion, leaving the pedicle in the abdomen. This practice has proven successful, but as it takes several weeks for the ligature to become separated, and in the mean time causes a fistulous opening between the peritonæal cavity and the external atmosphere, giving rise to more or less of suppuration around the ligature, I prefer to cut the ligature short, and allow it to remain within the abdomen, and close the peritonæal cavity permanently and at once.

Dr. Nathan Smith ligated each artery of the pedicle, separately cut the ligatures short, and returned the pedicle.

Dr. Atlee crushed off the pedicle with an ecraseur, and returned the pedicle after cauterizing the end of the stump.

Dr. I. B. Brown applies the actual cautery with red hot iron to the end of the pedicle, and replaces it in the abdomen.

Twisting off the pedicle, using a clamp to hold it before it is severed with the scalpel, leaving a portion beyond the clamp an inch or more in length, then applying another clamp to this free portion, and while holding the lower clamp firmly twisting the other around like wringing a chicken's neck, till the pedicle is twisted off—this method has been practiced by Dr. G. H. B. M'Leod, of Glasgow.

Torsion of the separate vessels of the pedicle has been successfully used by the late lamented Dr. G. D. Beebe,* of Chicago—eight out of ten cases treated in this manner having recovered. No hemorrhage occurred in either case. Torsion of the whole pedicle has succeeded in the hands of Mr. Jessup.†

The clamp has been more generally used than any other means to secure the pedicle. It is placed upon the pedicle and screwed tightly, and the end of the pedicle is retained outside the abdomen by this means, placing the clamp transverse the incision. With the use of the clamp no ligation of the pedicle is required. Its advantage is that it is easy of application. Its disadvantages are, that in case the pedicle is not very long it produces too much traction. It prevents the perfect closure of the incision, and the weight of the clamp resting upon the sensitive abdomen, is a source of irritation and sometimes causes much trouble. It requires much attention after the operation. It does not always prevent hemorrhage.‡ Strangulation of the intestines has occurred with its use.

Objections to the Ligature.—Theoretically it is urged that the presence of the ligature and the sloughing of the stump of the pedicle produce peritonitis and septicæmia. This is not proven by experience (see Peaslee, page 445), but the contrary is abundantly demonstrated by Peaslee, Spiegelberg, Waldeyer, Veit, Simon, I. B. Brown, and others.

* Transactions Amer. Inst., 1871. † Lancet, 1871, page 654.
‡ Peaslee, page 453.

Bringing the pedicle out through the incision, and transfixing it there by means of long needles, which are arranged with points which may be removed, is another method. These needles are passed through the skin, cellular and muscular tissue, and peritonæum, the same as we pass the needle to insert a suture, except that it is made to transfix the pedicle at about the point where the ligature is applied. While they are being inserted the assistants hold the abdominal walls in apposition, and steady the pedicle in the proper position. After about three needles are inserted, at intervals of about an inch, the ends of the ligature are twisted over the needles like the operation for hare-lip. The points of the needles are now removed, and the other sutures necessary to close the abdomen are inserted, and adhesive plaster is applied, as I have before mentioned.

In 1846 Mr. Handyside* carried the ligature attached to the pedicle through the recto-vaginal *cul-de-sac* into the vagina (instead of cutting it short, as I recommend, and leaving it in the abdomen). Other surgeons have occasionally performed the operation in this manner. This establishes a communication with the atmosphere and the peritonæum, and is more objectionable than cutting the ligature short and leaving it in the abdomen, especially when the catgut ligature is used, as *it* produces very little or no irritation.

Transfixing the pedicle is open to nearly the same objections as the clamp. The pedicle must necessarily be very long, to allow of the adoption of this plan.

Professor Peaslee uses a method of his own, but I do not know that others have adopted it. He gives cuts and full explanation in his work on "Ovarian Tumors," page 469. As the arrangement is quite complicated, I will not occupy the space to fully explain it, but simply say that the ligature is passed through a tube, which is left in the incision, supported by a cross-bar.

* "Gross.," Vol. II, p. 871.

It seems to me the plan is open to very serious objections on account of its allowing the admission of the atmosphere into the peritonæal cavity, and I can not see its advantages to be superior to other methods.

Some authors have recommended leaving a tent in the most dependent portion of the incision. I can not approve this practice.

After Treatment.

Some patients require no after treatment, except rest, mild diet, and the removal of the sutures in about five days. These should be removed *seriatim*, being careful to straighten out the end of the wire we intend to draw out, so that it does not lacerate the tissues. As each suture is removed, adhesive plaster should be applied at once, and allowed to remain a week or more.

In case of severe peritonitis supervening upon the operation of ovariotomy, we can hope for only moderate success from treatment. Why it is, I leave others to explain; but such is the fact, which we may as well acknowledge. The symptoms as they arise in various cases are to be met by homœopathic remedies applicable in other cases, only bearing in mind that *Arnica* internally is of the greatest value. *Arnica*, *Aconite*, *Bell.*, *Bry.*, *China*, *Ars. alb.*, *Nux*, etc., will occasionally be indicated. Stimulants and opiates are to be avoided.

I will again mention, as it has been so common to give opiates before and after this operation, I must be emphatic enough to be understood as objecting seriously to their use. Then, I say, unless the case is hopeless, and sure to die, give no opium in any form; but, for the relief of pain which nothing else will relieve, in hopeless cases, give morphia for humanity's sake.

HEMORRHAGE AFTER OVARIOTOMY.

Hemorrhage may take place from the surfaces from which adhesions have been detached, or from the pedicle. It gen-

erally takes place in from twelve to twenty-four hours after the operation, if at all, though in Koeberle's fourth case it occurred on the fourteenth day. In one of Dr. Clay's cases hemorrhage occurred on the second day.

In case of hemorrhage, the physician in whose care the patient is left should have the assurance and nerve, as well as knowledge, to at once remove the sutures and other dressings, seize the pedicle, and ascertain if it bleeds, and, if so, place another ligature upon it at once; and he should always have a suitable ligature at hand. If it is found that the pedicle does not bleed, search must be made for the vessel which has been lacerated in the operation, which has broken loose, and when found it must be at once secured and ligated. The blood and clots should be removed as gently and expeditiously as possible, and the abdomen carefully sponged out. The incision should now be closed and dressed as before, and some egg-nog or wine whey may be given

SEPTICÆMIA OR PYÆMIA AFTER OVARIOTOMY.

Symptoms.

In septicæmia the symptoms are usually those characterizing the typhoid condition, and occurring after a serious operation as a result of the absorption of poisonous gases into the circulation; while pyæmia consists of the absorption of pus into the blood.

The symptoms, as shown in general, are much alike, and as nothing but a microscopic examination of the blood would positively differentiate between these conditions, and as the treatment necessary is the same, we will not take time to discuss these conditions separately. We have the rapid, weak pulse; the dry, coated, red or brown tongue; dry, hot skin; and a haggard, exhausted countenance; and generally drowsiness. Sometimes rigors are present in alternation with flashes of heat, and are pathognomonic of the formation

of pus in a case which has shown evidence of inflammatory action for some time.

Prognosis.

Rather doubtful. although recoveries have taken place after severe attacks of septicæmia. (See Amer. Jour. Med. Sciences for January, 1856; also, ibid., April, 1863, and July, 1874.)

Treatment.

When symptoms of septicæmia arise an examination *per vaginam* should at once be made while the patient is semi-recumbent, in order to ascertain, if possible, the presence of a fluid in Douglas' *cul-de-sac*. If found, it should be tapped with a canula, through the posterior wall of the vagina, injected with *Solution of Iodine*, two or three grains to the ounce (with ten or fifteen grains of *Potass. iodide* added), and the drainage tube inserted and retained in the puncture. (See also Plate XIII.) The injections may be repeated

Fig. No. 28.—Drainage Tube.

daily, and if pus is discharged we will find benefit in making the injection twice as strong. The remedies indicated are *Iod.*, *Ars. iod.*, *China*, *Rhus*, *Ferrum*, etc.; sometimes *Baptisia* or *Merc.* In some instances the *Liq. Sodæ Chlorinatæ*, diluted with water, has been found useful as an injection into the pelvis, and given internally 3^{x} dilution, a teaspoonful every four hours.

Temperature of Injection.—The temperature of the injection should be about 98°. Care is necessary in this particular.

VOMITING.

Vomiting may be caused by the anæsthetic used, or it may be a symptom of incipient peritonitis, too high temper-

ature of the apartment, improper food, or other causes. It is a serious symptom after ovariotomy. It is liable to produce hemorrhage; or it may produce serious traction upon the pedicle, in case it has been secured by clamp or transfixed with needles. It may also detach a ligature which has been a little too loosely tied.

Treatment.

The surgeon who has not administered opium to his patient will avoid many cases of vomiting following this operation which he would otherwise have. So we may recollect a part of the treatment is preventive, in *not* giving opiates, as I have warned you before. In this, as other difficulties, it is best to try to remove the cause, if possible. See to it that the temperature of the room is not too high. If there is much tympanites of the stomach, give 1^{x} *Trit. Potass. chlo.* every half hour. If there are rigors, alternating with flashes of heat, give *Ars. alb.* For heat, accompanied with dizziness, rapid pulse, etc., with the vomiting, give *Aconite.* For passive vomiting, with no other special symptoms, I would depend upon *Ipecac.* Place a very large compress over the epigastric region, and bind it tightly with a band around the body.

FAILURE OF THE ABDOMINAL PARIETES TO ADHERE.

This occurred in Mr. Wale's fourth case and in Mr. Wells' twenty-second case. Of late years I find no account of such an occurrence. It results from either an improper adjustment of the tissues in applying the sutures, or as a result of too loose bandaging, so as to allow of too much movement, or not including the muscular and peritonæal structures in the sutures (simply stitching the skin together might readily result this way); or it may depend upon the bad condition of the patient, she having a low assimilative and recuperative power, causing a want of plasticity of the blood.

Treatment.

First give supporting diet; then the edges of the wound may be pared, the hemorrhage arrested, abdomen cleansed, and the sutures properly applied with the adhesive strips, as in first dressing; or the edges of the incision may be touched with strong nitric acid (using great care not to drop it into the cavity of the abdomen), and the parts placed in apposition as after paring the sides of the incision.

ABSCESS.

Sometimes an abscess forms in the line of the incision (most likely to do so from the irritation of the clamp).

Treatment.

As soon as discovered it should be freely evacuated, and treated as if occurring in another locality. *Vaseline* is, perhaps, the best dressing for it.

VAGINAL OVARIOTOMY.

The removal of a small ovarian tumor through the vagina is possible, as has been demonstrated by Professor T. G. Thomas,* of New York. The operation is *only* possible in small tumors without adhesions, and it is a question, whether their removal *should ever* be attempted when small. Dr. T. reports his case as follows:

"Drs. Peaslee, Noeggerath, and myself met in consultation, and carefully investigated the case. . . In discussing the subject of treatment, three plans were proposed: 1. That the cyst should be allowed to develop so that ovariotomy might be resorted to after some years of life had been passed in comparative comfort; 2. That the cyst should be tapped *per vaginam;* and, 3. That the operation of ovariotomy should be performed through the fornix vaginæ, in the same manner

*Amer. Jour. Med. Sciences, April, 1870.

that it is ordinarily accomplished through the abdominal walls. This last proposal was made by myself and urged upon these grounds:

"1. I felt satisfied that the cyst being movable (as proved by the fact that the knee-elbow position would at once cause it to roll out of the pelvis), sufficient space could be obtained through the fornix vaginæ to withdraw the emptied sac.

"2. I preferred this procedure to simple tapping, because drainage is very apt to follow paracentesis when practiced through the vagina, which might exhaust the patient and prevent a resort to vaginal ovariotomy at a later period. Furthermore, I did not regard the increase of danger attendant upon vaginal section as very great, even if removal of the cyst proved impossible; for, in case of such an occurrence, I proposed simply to tap the exposed cyst, and close the vaginal opening by silver sutures.

"3. I urged the adoption of the vaginal operation, rather than waiting for the full development of the cyst, because of the peculiarly anxious nature of the patient. After being informed of the nature of the disease she thought and spoke of almost nothing else; lost appetite, slept badly, and evidently depreciated in strength. From all that I could learn from her husband, who is a practitioner of medicine; from Dr. J. L. Brown, who had attended her, and from my own observation, I thought that she would prove a most unfavorable case for ovariotomy, at the time of full development of the tumor; and, to repeat a consideration just given in connection with paracentesis, I regarded the tentative process as not attended by great risk, since it involved incision only into the dependent portion of the peritonæum.

"On February 6, 1870, at three P. M., I proceeded to operate, in the presence of Drs. Peaslee, Brown, Walker, Purdy, J. C. Smith, and Sproat. Dr. Purdy having anæsthetized her with ether, she was placed in the knee-elbow

position, and secured upon the apparatus of Dr. Bozeman. This apparatus not only completely secures the patient in this position by straps and braces, but makes the position perfectly comfortable for any length of time, and also favors the administration of an anæsthetic. To prevent all possibility of the rectum falling into the line of incision, a rectal bougie was inserted for about five inches. Sims' speculum being now introduced, and the perineum and posterior vaginal wall lifted, I caught the fornix vaginæ midway between the cervix and rectum with a tenaculum, drew it well down, and with a pair of long-handled scissors, one limb of which was placed against the rectum and the other against the cervix, cut into the peritonæum at one stroke.

"The first step of the operation being now accomplished, I proceeded to the second. The patient's position was changed to the dorsal decubitus, and, passing my finger through the vaginal incision, I distinctly touched the tumor, which had now fallen again into the pelvis, and fastened a tenaculum in its wall. With a small trocar I then punctured, one after the other, three cysts, which gave vent to about six or eight ounces of fluid, which looked precisely like vomited bile. Drawing upon the cyst it now passed without difficulty into the vagina.

"For the third step of the operation the position of the patient was again changed. She was now placed in Sims' position on the left side, and his speculum introduced. Passing through the pedicle, at its point of exit from the vaginal roof, a needle armed with a strong, double-silk ligature, I tied each half of the penetrated tissue and cut off the cyst and ligature. The *cul-de-sac* of Douglas was then sponged, the pedicle returned to the abdominal cavity, the incision in the vagina closed by one silver suture, and the patient put to bed. The entire operation occupied thirty-five minutes, and presented no difficulties other than those slight ones incidental to ligature of a pedicle at some distance up the vagina.

"Subsequent to the operation the patient was kept quiet and free from pain by opium, sustained by fluid food, and strictly confined to the supine posture. Her only discomfort arose from sleeplessness and nausea which followed the use of the anæsthetic, and for ten days she progressed without any unfavorable symptom. At this time, being allowed to leave the bed and lie upon the lounge, she exerted herself unduly, and an attack of peri-uterine cellulitis invaded the right broad ligament. The pulse became rapid, the skin hot and dry, and a phlegmonous mass, as large as the fist, hard and painful to the touch, could be distinctly felt. This soon began to diminish, and now, at the end of the thirtieth day, has ceased to prove a source of any annoyance, while the general condition of the patient assures me that she is entirely out of danger."

The case recovered.

The operation is certainly more difficult than the operation by gastrotomy or abdominal section. It is more difficult to ligate the pedicle, and is not less dangerous than the ordinary operation. I have never thought this operation advisable.

BED SWING.

After ovariotomy and other serious operations, as well as in some painful diseases, it is convenient to have some means of moving the patient without causing her pain. The following cut represents a very cheap and convenient arrangement, and I copy the description of it given by Dr. D. Milliken, in the *Cincinnati Lancet and Clinic* for September 20, 1879. He says:

"Some months ago a puerperal patient of mine suffered from an exquisitely painful attack of pseudo-rheumatism in the hips and one shoulder during the course of a septic fever. For about thirty days it was necessary to catheterize her, and, as if to complete her wretchedness, she lost control of all the muscles of the rectum, expulsive and retain-

ing, so that she could neither expel her fæces completely nor retain them perfectly. Her vitality was as low as it could be, and I was in constant dread of bed sores.

"When her case had assumed this aspect, it became perfectly evident that she would die merely from the pain inflicted by so much rolling and lifting as was necessary for cleanliness; and it was equally plain that she would die from sloughing if not kept scrupulously clean.

"In this dilemma I took her husband to my office, and showed him pictures of the more approved fracture-beds and swings, and directed him to make some sort of apparatus to swing her from the bed. He had been trained in the best of all schools of invention—a farm—and was at the head of a manufacturing establishment, where his training was made more complete. I knew that his ingenuity, stimulated by the desperate necessities of the case, would devise some useful apparatus, but I was as much surprised as delighted to find, after a few hours, the admirable contrivance which I have shown in the rude cut.

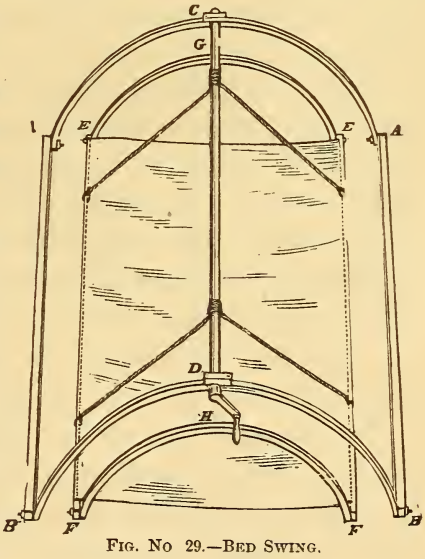


FIG. NO 29.—BED SWING.

"The inventor and builder had carried home some hickory stuff from a factory where buggy-felloes are steamed and bent. Of straight pieces he selected four, slightly knotty, and, therefore, unfit for bending. He took home, also, four felloes—two large ones and two small ones—which were unsalable on account of a slight tendency to splinter. The lumber, as specified, cost fifteen cents. He laid two of the

straight pieces, A, B, on the bed, near and parallel to its edges. At the head and foot of the bed he set up the larger felloes, A, C, A and B, D, B, and bolted them to the side-pieces at A, A, B, B, as shown. Then he laid two other straight pieces, E, F, on the bed parallel to the first pair, but closer to the patient's sides, and these he bolted to the ends of the two smaller felloes, E, G, E and F, H, F. On the highest point of the arch formed by each large felloe he bolted blocks, C and D, perforated for a long windlass, C, D, two inches in diameter. Ropes were attached to this windlass, and connected to the straight pieces lying close to the patient. The carpentry being thus finished, some strips of strong muslin were doubled and slipped under the patient—one under her head, one under her shoulders, another under her hips, and a wide one under her legs and thighs. When these strips had been stitched to the side-rails, the windlass was turned, and the patient was raised from the bed without pain.

"She was not only lifted for all purposes of sponging, syringing, vaginal irrigation, and defecation, but she often asked to be raised merely for a change, and, as she said, 'to cool her back.' A number of little pads and cushions were provided, and, by rearranging these on the bed, points of pressure were shifted almost hourly, and all danger of bed sores was obviated.

"You will observe that I am not reporting a case, but am praising one form of swing:

"1. Because it is cheap. The lumber can not always be procured from a factory for fifteen cents, but can always be bought or borrowed at a carriage-shop for a trifling sum. The iron crank, the carriage-bolts, and the clothes-line cost very little.

"2. Because, resting on the bed, it takes up no space on the floor of the sick-room.

"3. Because it is staunch. The patient does not swing from tottering upright posts, but from the summits of arches based on the bed.

"4. Because it can be built in an hour or two without noise.

"I have drawn the apparatus as it was built. Like every thing else, it is capable of improvement. For a heavy patient another felloe, and perhaps another rope, would be needed at the middle of the swing, where the weight of the hips tends to make it sag. The windlass and ropes ought to be so arranged that they could be quickly detached and laid away. We improved our apparatus by substituting a single piece of canvas for the four strips of muslin which originally supported the patient. This is a doubtful improvement."

I will suggest an improvement, however, which is to cut out from the canvas under the hips a piece, so that the evacuation of the bowels may be accomplished without trouble, having this opening covered, when it is not needed, with a piece of canvas fastened to one side of the swing, and buckled to the other side, so that when the bowels were about to move we could unbuckle the one side, and slip the piece of canvas out, raise the bed, place the vessel under the opening to receive the feces, and afterwards remove it, let down the bed, and slip the piece of canvas under the patient, and fasten it with the buckles.

CHAPTER XXVI.

UTERINE FIBROMA—MYOMA—FIBROUS TUMORS OF THE UTERUS.

Fibroid tumors of the uterus are much more common than is generally supposed by the profession, as in many cases they are of small size, and are not discovered till after death. Klob estimates that over forty per cent of women who die over the age of fifty years are affected with uterine fibroma, while Boyle declares that 20 per cent of those who die over thirty-five years of age are so affected. They have not been found before the age of puberty. They are more frequent relatively among negresses and mulatto women than among the whites.

Etiology.

Undoubtedly some local irritation at the point where the tumor originates causes its development. This irritation might arise from external violence, little noticed at the time, and soon forgotten; or from the retention of a small bit of placenta; or from the use of instruments to produce abortion. Some authors have claimed sterility as a cause; but it is rather a result than a cause. About forty-five per cent of patients who have been discovered to be affected with uterine fibroma have been sterile.

Pathological Anatomy.

The fibroid tumor, when examined with the microscope, consists of unstriated muscular fiber and connective tissue. The connective tissue is firm, white, and almost cartilaginous. The arrangement of fibers is concentric. The tumor is scantily supplied with blood-vessels, and almost or quite destitute of nerves. The tumor may undergo changes, among which

are softening, fatty degeneration, œdema, induration, calcareous degeneration, etc.

Klob mentions one case of primary carcinomatous degeneration, which is the only one on record. Extension of carcinoma from neighboring parts is more common. Sarcomatous degeneration is still more frequent.

Varieties of Fibroids.—We have the *subserous*, the *submucous*, the *intra-mural* or *interstitial* varieties. The first two may be pedunculated; the submucous projecting into the uterine cavity, and, when attached to the uterine tissue by a pedicle, called a fibrous polypus (which, owing to its peculiarity, will be discussed separately); the subserous projecting into the abdominal cavity. It may either be pedunculated or non-pedunculated. The intra-mural variety develops in the muscular tissue, either of the body or cervix, its more common seat being in the body. I will insert a few cuts to represent the different varieties of uterine fibroma.

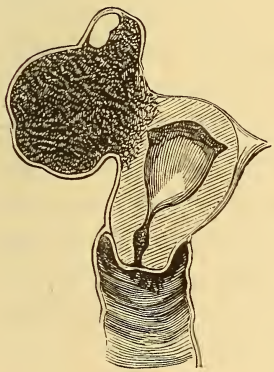


Fig. No. 30.—Subserous Fibroid of the Uterus.

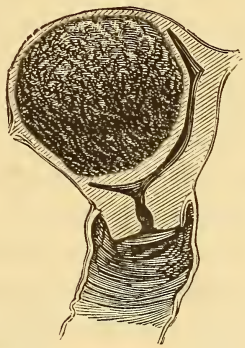


Fig. No. 31.—Submucous Fibroid of the Uterus.

Fig. No. 32.—Fibroma of the Neck of the Uterus.

Symptoms.

Subserous fibroids, when small, produce little disturbance in the system, and give rise to few symptoms. They tend to produce displacements of the uterus, however, from their weight, as, when situated in the anterior portion of the body of the uterus, they tend to antivert or antiflex the organ, and

when in the posterior part they produce retro-version or retro-flexion, or a lateral flexion when entirely to one side. With these flexions there is some tendency to prolapse as well. In the large development of subserous-fibrous or fibro-cystic tumors of the uterus, we have similar symptoms to those we have in ovarian cystoma (more especially the dermoid variety), together with some enlargement of the uterus. If the tumor is pedunculated, there is less enlargement of the length of the cavity of the uterus than in the intra-mural form.

In the submucous variety (where the tumor projects into the cavity of the uterus) we have also an enlargement of the size of the cavity of the uterus, but the space is occupied largely by the tumor, and the sound may pass six or eight inches up by the side of the tumor, and, if pedunculated, may sweep nearly all around it; while, if non-pedunculated, we can only pass the sound up on one side.

In the submucous form of uterine fibroids we have great disturbance of the general health early in the disease (while the tumor is small), accompanied by excessive floodings, in many cases, although I have seen exceptional instances where, owing to the tolerance of the uterus, little hemorrhage or general disturbance was manifested, the tumor being discovered by examination with the sound, while seeking to discover displacement, which we suspected from long continued pain in the knee, in one instance; in another, chronic pain in the back, with some gastric derangement. I have now a patient, who has flowed very little for over a year, who has a large intra-mural, submucous fibroid. She formerly flowed excessively, but was treated by Dr. ———, of this city, with daily injections into the tumor of *Ergotine*, causing great inflammation, which has caused adhesion of the tumor to the entire intra-uterine surface. The lady (widow of a deceased prominent allopathic physician of Cincinnati) is now in the enjoyment of quite good health, since I succeeded in subduing the inflammation, and the injections

of *Ergotine* seem to have accomplished the arrest of the hemorrhage most efficiently, although the tumor remains as large as ever.

Diagnosis of Uterine Fibroids from Pregnancy.

In pregnancy we usually have a cessation of menstruation, while in subserous uterine fibroma it is normal, or in excess, and in submucous uterine fibroids it is almost uniformly in excess. The fibrous tumor develops more slowly than pregnancy. The neck of the uterus is obliterated in case of submucous uterine tumors when the tumor has advanced to the size of the uterus at about four or five months of gestation, whereas in pregnancy it is not obliterated till three or four months later.

Diagnosis from Atresia of external Os with Hæmatometra.

In atresia of the external os with hæmatometra we also have obliteration of the cervix early in the disease, but there being no flow in atresia and a free flow in fibroid tumors of the uterus, we need not be misled in diagnosis. In making a digital examination of a suspected fibroid of the uterus it is well to select the menstrual period, as then the os is more open, and will, in case of tumors of the uterus, often admit the index finger, and we are able to feel the tumor, and more clearly make out its size, shape, and attachment. When we can not do this, insert sponge tents till we dilate the os sufficiently to make the examination thoroughly.

Prognosis.

The prognosis depends much upon the variety, size, and attachment of the tumor, as well as upon the treatment used. The polypoid variety of the submucous tumor usually requires an operation for its removal, and we may expect success if the patient is in a favorable condition. (I have lost but one case out of over one hundred operations of this

kind I have performed, and that was a lady from College Hill, Ohio—a patient of Dr. Vance—who died from cancer of the breast about a year after I removed the fibroid from the uterus, and I think life was prolonged in this case even, as it arrested the hemorrhage from the uterus—from which she had suffered for over two years—and for several months after I operated her health was improved). The small subserous fibroids give no trouble, unless they enlarge and take on, also, a cystic formation. Larcher* reports a case of rupture of the uterus from a uterine fibroid.

Treatment.

In large fibro-cystic tumors of the uterus, which are, of course, of the subserous variety, and are pedunculated (which can not always be positively ascertained, however, till the abdomen is opened and the pedicle is explored), the operation required is very similar to ovariotomy.

The pedicle may be ligated singly if small, or it may, if large, be divided into two or three parts in the ligation by passing a needle armed with a double ligature (catgut is preferable). Tie the ligatures tightly with three knots each. Have the ligatures interlock in this manner (Fig. 33), otherwise they might tear apart the different portions of the pedicle separately ligated, causing hemorrhage. Cut them short, and leave them in the abdomen. The operation will have to be abandoned in some cases, or else extirpate the uterus by ligating it above the vaginal juncture, and then removing the uterus with the tumor. (See Extirpation of the Uterus.) When it is found that the attachments are so very extensive as to be too large to ligate, unless extirpation of the entire uterus is performed, it may be attempted in desperate cases, as the result of recent operations seems to justify the operation,

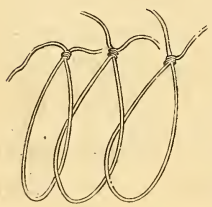


Fig. No. 33.

*Barnes's "Diseases of Women," p. 327.

which I will discuss under the head of "Extirpation of the Uterus."

The removal of submucous tumors of the uterus which are pedunculated (termed polypi) I will speak of under the head of "Uterine Polypi."

The non-penunculated, submucous, fibrous tumor of the uterus may be removed in the following manner by what is called *enucleation:* First of all, the os uteri must be as fully dilated as possible; or, it may be incised after the patient is placed under an anæsthetic, and we can then pass the hand, or at least two fingers, high up into the uterus, having its fundus pressed upon by assistants through the abdominal wall. We next pass up between the fingers we have introduced a long-handled bistoury, and make an incision into the tumor as long as convenient. We now withdraw the instrument, and peel back the coverings of the tumor as well as we can, and if we can entirely detach the tumor from its inclosed sheath in this way, aided by the use of Sims' enucleators, it is best; but if it can only be partially de-

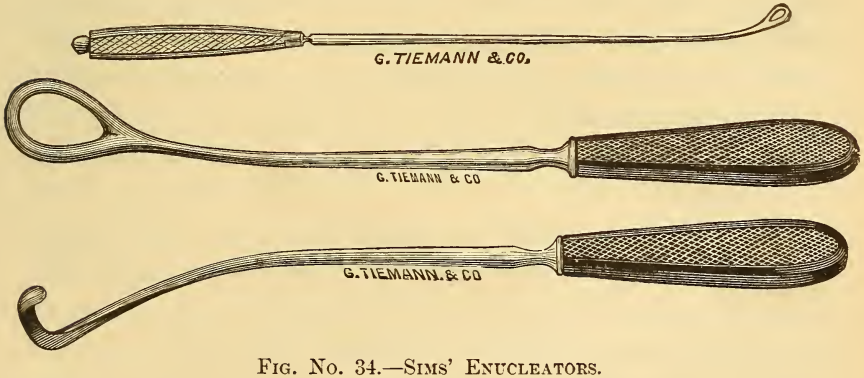


FIG. NO. 34.—SIMS' ENUCLEATORS.

tached we should seize the detached portion with the vulsellum forceps (see Plate X), or Nélaton's forceps (see Plate XI), and as we make traction with them continue to attempt to make further separation with the fingers or enucleators.

If the tumor can not be extracted entire, it may be torn

off piecemeal, scraping the interior of the sac with the circular sharp enucleators or curettes (using care not to injure the uterus), thus removing all of the tumor, as I did in a case of this kind in a lady from Kentucky last year (and made a success of the operation). The tumor's vitality in this case seemed to have been lost by the use of sponge-tents, used in dilating the os. and it became quite soft, although on the first attempt at dilatation, six weeks before, the tumor was solid and firm.

In case we can draw down the enucleated tumor to the mouth of the vagina, or into the vagina even, we may sever its connection with the ecraseur; simply incising the tumor and allowing the contractions of the uterus to enucleate it, sometimes succeeds. Again, inserting tents into the substance of the tumor and inducing suppuration is recommended; but is more hazardous than enucleation. Professor Byford reports two successful operations of this kind.

Mr. I. B. Brown reports sixteen cases treated by incising the os uteri freely, causing an entire arrest of hemorrhage in ten cases; in six of these cases the tumor materially diminished in size or entirely disappeared. When this procedure is insufficient, Mr. Brown cuts into the tumor, and by twisting the knife around similar to coring an apple, removes a part of its central portion, then plugs the vagina to arrest hemorrhage.

In performing either of these operations the patient should lie upon the side with the thighs flexed upon the abdomen, and the vagina should be dilated with Sims' improved slit speculum held by an assistant. (See Plate No. III.) Professor Danforth, of Milwaukee, has preserved a submucous fibroid of the uterus which he removed several years since by enucleation. The tumor weighed, when removed, eight pounds, and the patient recovered.

Injecting the Tumor with Ergotine.—For some years the profession was elated over the expected successful treat-

ment of fibrous tumors of the uterus with injections of *Ergotine;* but experience has not confirmed the good effect of this treatment to a sufficient extent to make it worthy of much confidence. The operation produces great pain, usually for several hours, and severe inflammation sometimes results.

Electricity has been used to produce absorption of these tumors, with but very little success.

Treatment by Sponge Tents.—My attention was directed some years since to a case related by Dr. Sims,* of New York, who accidentally left a sponge tent in the uterus for seven days which he had inserted to examine a fibrous polypus, and upon its removal found the polypus quite destroyed; and I have taken the idea that pressure is good treatment in uterine polypi, and I believe it to be very serviceable in submucous fibroids. I have attempted this plan with twelve cases of polypi successfully, but in only one case of submucous intra-mural fibroid. In this case the effect was all that could be expected. The hemorrhage, which had been almost fatal for over five years, was cured, and I removed the tumor piecemeal with the vulsellum forceps by enucleation, finding it easily torn to pieces, and I was troubled with little hemorrhage. In these case I would provide myself with about four sizes of sponge tents, the largest at least an inch in diameter when compressed, in length about four inches. The smallest size I introduce and allow to remain about eighteen hours, then another and another, and allow to remain about the same length of time. In this way we keep up constant pressure, and they do not become very offensive in eighteen hours.

Palliative Treatment *in Cases which, for some Reason, it is not Desirable to adopt Operative Measures.*—In displacements caused by the weight of small intra-mural fibroids, we should rectify the displacement, and retain the uterus *in situ*, even if we have to use the vaginal pessary in some form; it being better to do this than to allow the patient to suffer from

*Sims' Uterine Surgery, page 64.

the sympathetic pains and derangement of general health consequent upon displacement of the uterus.

Hemorrhage, which is so excessive in some instances, may be arrested with the tampon in the vagina, or the sponge tent and tampon combined. Ferruginous and astringent remedies used by the old-school have little effect, and I can say but little more in favor of *Ipecac*, *Aconite*, or other remedies used by homœopaths (in this class of cases, though efficient in many other forms of hemorrhage).

Tamponing the vagina or uterus is a necessity in many cases; and the most convenient and efficient vaginal tampon known is the French elastic rubber bag, with a tube and stop-cock. This a patient can introduce, and the nurse can inflate.

The sponge tent arrests the hemorrhage, and prepares the womb for examination or operation, and if continued, and properly watched, will, I fully believe, in many cases, cause a destruction of the vitality of the tumor, arrest of its development, and, in some instances, its absorption and disappearance. We know it will do so in pedunculated fibroids, and I believe that it will exert a salutary effect upon submucous fibroids as well. I do not claim that one case demonstrates a principle; but it is better than no trial.

Of course the anæmia and general weakness caused by great loss of blood are to be remedied all we possibly can by nutritious diet and such remedies as *China*, *Ars.*, *Chi. ars.*, *Merc.*, *Nux*, *Rhus tox.*, etc., as homœopathically indicated; but it is best, in these cases of excessive hemorrhage, depression, and exhaustion, to operate for the removal of the tumor, or at least try to arrest its growth and destroy its vitality, if possible; but it may be first necessary to place the patient in a condition to bear operative measures.

Liquid Persulphate of iron, as an intra-uterine injection in these cases, I most heartily condemn, as calculated to produce great irritation, with nothing more than temporary relief.

Position may afford Relief.—In some cases the tumor

just fills the pelvis, and produces strangury by pressing upon the urethra. In such a case lifting the tumor above the brim of the pelvis may afford very great relief, the distressing symptoms entirely disappearing; and the patient goes on for years without trouble, if the tumor be subserous or intra-mural. In case it is submucous, of course, the demand for operative procedure would still remain, as the hemorrhage would continue, although the other symptoms might be relieved.

Where hemorrhage is active from a submucous, intra-mural fibroma of the uterus, and circumstances or the condition of the patient forbid its attempted removal, the ovaries may be removed, to stop the hemorrhage. Both ovaries may be removed through one opening in the abdominal cavity, as would be made for the removal of a small ovarian tumor; the opening may be made to either side of, or directly in, the median line. If the incision is made to one side of the median line, it should be made about four inches in length obliquely in a line from the anterior superior spinous process of the ilium to the symphysis pubis. The base, or pedicle, of the ovary should be ligated with catgut ligature, and replaced in the abdomen, closing the incision tightly with silver sutures and adhesive plaster.

This operation has so far proven successful in every case. The first one to perform this operation for this purpose was Dr. Trenholme, of Canada, who operated in 1876, since which time Prof. Hegar, of Freiburg, Prof. Nusbaum, of Muncie, and Dr. Wm. Goodell, of Philadelphia, have performed the operation successfully, as regards the recovery, and also in arresting the hemorrhage from the tumors, and the tumors have diminished in size as well.

CHAPTER XXVII.

UTERINE POLYPI.

VEGETATIONS OF THE ENDOMETRIUM — UTERINE HYDATIDS — VASCULAR POLYPI — PLACENTAL AND GRANULAR POLYPI, ETC.

The uterine polypus usually consists of a fibrous, pear-shaped tumor, attached to some portion of the internal surface of the uterus, by a pedicle or stem. The size of the pedicle varies somewhat with the size of the polypus; although occasionally quite large polypi are attached by small pedicles, and, in other occasional instances, the small polypus has a pedicle about as thick as its own diameter. The *fibrous uterine polypus* usually exists singly, although I have known one instance where there was one quite large fibrous polypus in connection with several small fibrous growths at the same time in the same uterus. The small multiple fibrous growths of the body and cervix are termed *vegetations of the endometrium*. The small and semi-organized growths are termed mucous polypi.

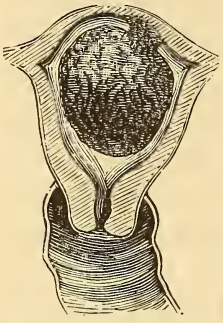


Fig. No. 35. — Fibrous Polypus, with short Pedicle.

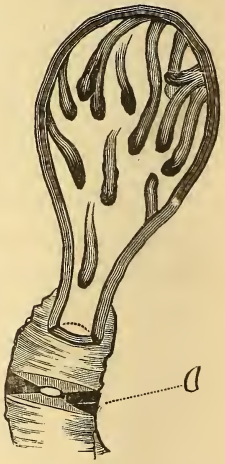


Fig. No. 36.—Mucous Polypi and Constricted Vagina.

Hydatids of the uterus consist of numerous small cystic tumors generally attached to each other like a bunch of grapes. The enlarged mucous polypi are shown in the annexed cut, representing the growths as they existed in a patient whom I treated about two years since. These

growths, about two inches in length, looked much like a leech as used by our old-school brethren, and consisted of semi-organized fibrous tissue covered with mucous membrane. These growths came away by the contractions of the uterus seeming to break them loose. They caused excessive hemorrhage, and much pain was experienced previous to their discharge, which usually occurred every few weeks, with no regularity, from two to twelve being discharged at a time. The patient was about thirty-five years of age, married ten years, barren and exceedingly reduced in strength from loss of blood, pain, and sympathetic gastric derangement. Her trouble had existed some seven years.

The *vegetations of the endometrium* or enlargement of the follicles of the cervix sometimes exist in great numbers. They are sometimes termed granulations of the cervical canal or granular tumors of the womb. Large mucous polypi, with large supply of blood vessels, are termed *vascular polypi.*

The *fibrous uterine polypus* seldom reaches a greater size than that of a child's head, and they more frequently are expelled naturally or extracted artificially when of much smaller size.

The *single cystic growth* of the cavity of the uterus seldom attains a large size, usually not as large as a child's head.

Hydatids of the uterus sometimes attain to very great dimensions in their totality, though singly they are small. Their size often distends the uterus about the same as gestation at term, and their presence has been mistaken for pregnancy. They frequently occur in connection with pregnancy, and from their presence interrupt the regular course of gestation, and cause either a miscarriage or a premature delivery.

Granulations of the cervix or *vegetations of the endometrium* do not cause any considerable enlargement of the uterus. Neither do mucous polypi of the uterus produce any great enlargement of the organ.

Hydatid developments are not confined to the uterus, but have been found in the *liver*, *lungs*, *testicles*, *mammæ*, and even in *bone*.

The *granular polypi* are quite uncommon in the uterus; but the vascular polypi are occasionally met with in this organ. Polypi of the uterus are most common in the middle-aged and older women. They *sometimes* are developed in young women even in the virgin state.

Polypi of the uterus may be attached to the interior of the body or cervix, and sometimes just at the margin of the os, and hang suspended in the vagina. When attached at the margin of the os they produce no hemorrhage or other disturbance, as a rule, and are discovered in this situation accidentally, the patient not having thought of the existence of any thing of the kind. Polypi attached in this locality are usually not larger than a hickory-nut.

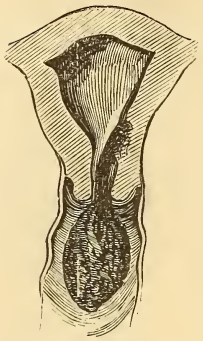


Fig. No. 37.
Fibrous Polypus with Long Pedicle.

Placental polypus may develop from a partially retained placenta, or rather from the retention of a part of the placenta, on account of inflammatory action having caused abnormal adhesions between the placenta and uterus. They are a source of active hemorrhage. C. Braun (Dublin "Med. Jour.," 1851) describes this variety of polypus of the uterus. Braun relates five cases; but, from the description, I think it would be as well to designate these cases as partially retained placenta, and not classify them under the head of polypi at all. When removed they certainly have no disposition to return.

Etiology and Morbid Anatomy.

Doubtless, the origin of the fibrous polypi vegetations of the endometrium and mucous polypi may be found in an inflammatory condition. The reason why some cases of in-

flammation, and injury causing inflammation, develop tumors in the uterus of various forms and qualities in some instances and not in others, is hard to explain; in fact, I may say, explanation is impossible in the present state of our knowledge. From all that I can learn I believe that the fibrous polypus originates in the fibrous tissue of the uterus, like an intra-mural, *submucous*, or *subserous fibroma* of the uterus, from inflammation at this particular point in the organ. Around this point of inflammatory action (which may have been caused by a bruise accidentally received during gestation, in labor, or otherwise), there is exuded a plastic material, which organizes into a hard mass, usually largely consisting of *white fibrous tissue*, especially if the injury is upon the internal surface of the uterine muscular tissue beneath the mucous surface. The muscular contractions of the uterus press this hard mass into its cavity, and it gradually becomes pedunculated through these contractions of the uterine muscular tissue. The polypi of the uterus seldom contain any muscular tissue or nerves of any size. Why this is so, and why they consist of white fibrous, and some yellow elastic tissue, I can not explain. They sometimes contain sinuses filled with serous liquid. Generally a single blood vessel is all the means they have of nourishment. Their growth is consequently slow. Arising beneath the mucous membrane they push it before them, and it is this which constitutes their covering as they develop. It is not unlikely that the use of instruments to produce abortion, or rude efforts in performing versions, in labor, or the imperfect detachment of the placenta may be a cause of the development of the irritation which tends to the development of these tumors.

Vegetations of the *endometrium* are enlarged granulations which have been thrown out to repair injuries received by the interior of the cervix. They are not ordinarily covered with mucous membrane, and bleed on the slightest touch. They may resemble enlarged mucous follicles; but the mucous

follicle is covered with mucous membrane. The *enlarged mucous* follicle in time becomes the *mucous polypus*. This enlargement is probably due to closure of the ducts of the follicles in some instances; in others, due to inflammation in these follicles or glands, and consequent effusion of blood and serum, which partially organizes. These polypi have a resemblance to muscular tissue, though not firm and well organized.

The *single cyst* is probably an immensely enlarged mucous follicle or an effusion of serous fluid under the endometrium, which is forced into the uterine cavity by the uterine muscular contractions, in the same manner that the fibrous polypus is formed, and becomes pedunculated by these contractions, and enlarges by means of continuous effusions. The covering of these uterine cysts consists of mucous membrane only. They resemble moles, which I will speak of separately, as they differ in some important respects.

Hydatids are transparent cysts or vesicles. Their contents resembling pure water, they have been supposed to be independent animals, and were called by Laennec "*cysticercus*." Mr. M. Edwards, in his "*Elémens de Zoologie-Animaux sans Vertèbres*," says: "The hydatids are generally considered as the last link in the series of intestinal worms; but the bodies described under this title are perhaps not real animals, and seem rather to be mere pathological products." They seem to be caused in the uterus by a sort of dropsy of the chorion, which acts to destroy the life of the ovum. Sometimes, 'tis true, the chorion is only slightly affected with this cystic degeneration in these cases, and consequently the embryo is not disturbed in its growth and perfect development.

It is a question whether hydatids in the uterus are not always the result of unhealthy or imperfect impregnation. We know they are situated in the placenta in many instances, and as they destroy the healthy circulation, or are the result

of abnormal development of the vessels of the placenta, they interfere directly with the nutrition of the impregnated ovum. I would not, however, dare to say that the existence of hydatids was positive proof of copulation having taken place, as I have seen them discharged from a woman where I had every reason to believe there had never been copulation; and in another where copulation had been unknown for upwards of two years. (The single cysts of the uterus are not an indication of imperfect impregnation, as I have seen them also in the class of cases just mentioned.) The occurrence of hydatids in other organs and tissues is also evidence that they are not caused from imperfect impregnation.

Diagnosis.

Symptoms of inflammation may or may not exist in cases of uterine polypi. More frequently we have present an alarming hemorrhage from the uterus at times, and the dribbling of blood quite constantly, although during the early development of the fibrous or cystic growths we may have only an increase in quantity or duration of the ordinary catamenia. These floodings are usually accompanied with some pain in the uterus of a bearing down or expulsive character. These symptoms go on increasing in severity till the patient becomes alarmed, and the physician is consulted. In some instances in the development of hydatids the menstrual flow ceases, which induces a suspicion of impregnation being the cause of the cessation of menstruation. The blocking of the internal part of the cervix by inflammatory action or the development of abnormal growths may for a time arrest the regular flow, and it may then come on with great violence when no tumor is there. When tumors are present in the uterus after the effort of nature to expel them from the uterine cavity is established, and the contractions of the muscular fibers in the body of the uterus are supplemented by a relaxed condition of the cervix, there is an excessive flow.

Sterility is, of course, the rule in all cases of uterine polypi when developed to any considerable extent, and is to be considered in the diagnosis of the case. The history of the case aids us in the diagnosis in some measure. The absence of the catamenia for several months, followed by a flow free and almost continuous for a period of weeks, would indicate a threatened abortion in the young married woman, while in women aged from forty to forty-five years it might be indicative of the climacteric period. There are, however, exceptions in these cases where these symptoms are indicative of miscarriage, even in women over fifty years of age. And in the case of the unmarried we must bear in mind that the condition of pregnancy is not an impossibility; and we should also recollect that, in the case of the young married woman, a tumor in the uterus is not impossible.

Debility, anæmia, gastric disturbances, headache, backache, uterine pains, etc., as well as the *uterine hemorrhage*, may be due to either uterine polypi, intra-mural fibrous tumors of the uterus, threatened abortion, retention of the placenta after miscarriage, inflammation, or ulcerations of the uterus; hence we have no means of making a positive diagnosis except by physical examination. I may except some cases of mucous polypi which are detached, and are discharged by the contractions of the uterus, when we have evidence of the nature of the difficulty without physical examination. In attempting a physical examination we may find that touching the os uteri gives rise to considerable hemorrhage. This fact is indicative of the granulation of the cervical canal, vegetations of the endometrium, cauliflower excrescence or cancerous ulceration, or mucous polypi, and must be differentiated from the ulcerated condition of the cervix by specular examination.

The exact nature of the polypoid growth can only be discovered in some cases by dilating the os and cervix with sponge tents; sometimes, however, a mucous polypus, or sev-

eral polypi of this variety, are felt protruding from the os. In these varieties of polypi the uterus is felt not greatly enlarged. If we make use of the speculum we may attempt to pass the uterine sound, in case digital examination has caused no flow, and we desire to diagnose the case more clearly. If the history of the case shows several months of hemorrhage, easily induced, even from copulation, we had better, before introducing the sound, provide ourselves with the *Persulphate of Iron* and a probe wrapped with cotton, that we may be ready to arrest any excessive flow which may be induced by the examination. In case of mucous polypi, granulations of the cervix, and vegetations of the endometrium, some hemorrhage is likely to be induced by the introduction of the sound a half-inch inside the os uteri, and I consider this evidence sufficient to make the diagnosis, taken in connection with the history of the case, and the slightly open condition of the os, and the slight enlargement of the uterus.

When we find that the uterus is much enlarged, and the history of the case shows that hemorrhage has existed for many months, and there has not been any discharge of mucous tumors or hydatids, we may be quite sure we have to deal with a fibrous polypus. Upon inserting the sound in this case no hemorrhage is induced while the sound is in the cervix, and with care we may pass the sound up between the tumor and the interior of the uterus. This will give some information of the size of the tumor, when conjoined with external manipulation, with one hand upon the hypogastrium. We may now gently sweep the sound around the interior of the uterus and around the tumor, and by this means ascertain the location of its attachment and the size of its pedicle. In case the tumor consists of a single cyst, or a mass of hydatids, we will probably rupture the cyst or cysts by the examination; and, perhaps, at first imagine we have accidentally ruptured the waters of an impregnated ovum.

We should not attempt the examination with the sound till we are satisfied that there is no pregnancy in the case, unless it be that a fœtus has been expelled, and we desire to learn what keeps up the flow. This flow might be caused from a retained and partially attached placenta, as well as a fibrous polypus, or a mass of hydatids. To make the diagnosis sure, and at the same time make a point in treatment, we may dilate the cervix with sponge tents, and then introduce one or two fingers, and more clearly make out the nature of the difficulty. By doing this we lose nothing in any event, as the case demands local treatment whatever cause may be operating to produce the symptoms; especially is this true if remedies have been tried in vain before the examination is attempted.

The dilatation of the cervix sufficiently to allow of the introduction of one finger into its canal will enable us to feel the round, smooth surface of the polypus, if it be of a fibroid character. If the mass be hydatid, we feel it soft and compressible to some extent, and probably the pressure of the finger to determine its nature will break loose some of the cysts, or lacerate them so as to allow of the escape of their contents.

Some cases of uterine polypi may tend to cause ante- or retro-version, ante- or retro-flexion; and in cases where these displacements exist, we may have the train of symptoms present in instances of these misplacements from other causes. Inflammation of the uterus may be caused by the irritation of the uterine polypus, and this inflammation may extend to the cellular tissue, or to the peritonæum.

Differential Diagnosis.

The condition most likely to be mistaken for a *fibrous polypus* is *chronic partial inversion* of the *uterus*. First, if we feel the uterus round and smooth through the abdominal walls, by placing one hand over the abdomen, and the other

pressing the organ up, with two fingers in the vagina, there is no inversion. In *inversion* of the *uterus* the history of the case must show a previous labor, followed soon by similar symptoms to those now present, or the discharge (naturally or artificially) of a *fibrous uterine polypus*, which might have inverted the fundus. One fibrous polypus having been thrown off, or removed by art, we may know that if the time is not long since past we have not a case of fibroid, but most likely an inversion of the fundus of the uterus, simulating, by the feel, the fibrous polypus.

The *single cyst*, or the hydatid mass, may be simulated by a product of conception in the shape of a mole or a dead fœtus with the membranes intact. Whichever condition is present is immaterial, as the indication in either case is to remove the mass; hence time need not be spent to differentiate at this stage of the case.

In cases where the *fibrous uterine polypus* of large size is expelled into the vagina the condition simulates complete inversion of the uterus, and this displacement should be well understood in order to differentiate between these two conditions. If the extruded polypus is of small size there is little or no danger of making a wrong diagnosis, as it may be felt so easily that error is not likely to occur. The head of a small fœtus, having passed the os, might somewhat resemble the small-sized polypus when expelled from the cervix. But the feel of the head of the fœtus is harder in some spots than in others, while the polypus is of uniform density. The history of the case aids the diagnosis. Traction upon the head of the fœtus will soon deliver it, and settle any doubt we may have had in regard to its nature. We may also bear in mind that the fibrous polypus is insensible, and does not bleed from its own surface; while the inverted uterus is *sensitive*, and *bleeds from its surface*.

Prognosis.

The prognosis of uterine polypi is favorable, the efforts of nature being sometimes sufficient to effect a cure, but in other instances the resources of art are required to remove the difficulty. In the fibrous variety of polypi their removal is usually the end of the trouble. In the mucous variety, as well as the granular, there is a disposition to return after removal, and great thoroughness of treatment is necessary to prevent their continuous formation. The single cyst is seldom or never reproduced. The hydatid growth may be again developed after removal. If left to themselves all varieties of uterine polypi (except the fibrous with a pedicle attached at or near the os, which hangs loose in the vagina) are likely to exhaust the patient from loss of blood and weakness induced by the anæmia consequent upon this drain upon the vital fluid; hence the outlook is not encouraging for happiness and strength when the tumors are left to themselves, although life may be prolonged for a long time. Occasionally life may be lost, mainly on account of the excessive flow caused by the presence in the uterus of polypoid growths. Other diseases develop more readily on account of the exhaustion produced by the excessive hemorrhages induced by these growths.

Larcher* describes a case of spontaneous rupture of the uterus from intra-uterine polypus. The patient died, after having suffered from hemorrhage and from symptoms of peritonitis. The autopsy revealed a polypus in the uterine cavity, attached to the anterior wall; and the opposite side was found ulcerated and torn through, and communicating with the cavity of the abdomen.

Dr. Cockle† reports a case of death resulting from a fibrous uterine polypus which had partially decayed, and some of the decayed matter had found its way through the

*Arch. Gén. de Méd., Nov., 1867. †*Med. Times and Gazette*, 1863.

Fallopian tube into the abdominal cavity, causing fatal peritonitis.

These cases of a fatal termination in this manner are exceedingly rare, however, and the rule is, that they do not terminate fatally, except, as I have before mentioned, through exhaustion, and the supervention of other diseases. In some instances where the pedicle of the polypus is long, and it is expelled into the vagina, the contractions of the cervix strangulate the neck of the polypus, and it loses its vitality, the pedicle sloughs and the tumor spontaneously drops off. The pressure of a developing fœtus may sometimes destroy the polypus, and cause it to become detached from the uterus, or soften and slough away. It is usual, however, that pregnancy does not occur in a case of uterine polypus, and if it does, it is more common that the fœtus is destroyed, and a miscarriage is induced by the presence of the polypus, instead of the polypus being destroyed by the product of conception.

Treatment.

Usually the first indication is to arrest the hemorrhage. For this purpose *Aconite* is the indicated remedy, if there is fever, or rapid pulse; *Nux*, or *Secale*, if there is a slow pulse with *weakness* and *spasmodic contractions* of the *uterus; Ipecac*, if *nausea* or *vomiting* complicate the case; *China*, if there has been *great loss of blood*, and *great exhaustion* is present; *Ars. alb.*, for chilliness, alternated with heat and hot flashes. *Cloths* wrung out of cold water applied to the epigastrium are of service. *Lemonade* may be drank.

These means failing, the *tampon* should be used in the vagina if the flow continues excessive. Formerly the tampon was composed of a silk handkerchief, formed by pressing its central portion up to the os, and distending it with bits of cotton, or pieces of cloth, and this form of tampon may still be used if we can not obtain anything better at the time.

A more convenient method of tamponing the vagina is by means of the gum elastic bag, or *colpeurynter*, having an elastic tube attached, through which we may introduce the air, and distend the bag to the full capacity of the vagina, then tie the tube, or prevent the escape of the air, by means of a stop-cock. This procedure enables us to take time to consider, and also gives the patient an opportunity to regain strength.

The tampon should be removed in twenty-four hours, for if it was left much longer, the decomposition of the retained blood might become very offensive, and even dangerous, from absorption. After removal of the tampon, if the patient is weak and exhausted, we may reapply it, daily, for a week or so, till the patient is in better condition.

Ferrum, *China*, *Nux*, *Phos.*, or *Secale*, are often indicated in this class of patients; under these circumstances *beef tea*, *soup*, *raw eggs*, or *milk*, should be allowed. Let the patient drink freely of cold water.

The next step in the treatment is to dilate the *cervix uteri*, in either form of polypi, which are contained within the uterine cavity. When they are found hanging in the vagina attached to the margin of the os, or by means of a pedicle attached within the uterine cavity, no dilatation of the cervical canal is necessary; but we may at once proceed to remove them by *torsion*, the *ligature*, with *scissors*, or the *chain*, or *wire ecraseur*.

Operation.—Before deciding what means to use in the removal of a polypus hanging in the vagina we should ascertain the size of its pedicle. If the pedicle is as large as the finger, or larger, there is no doubt but that the ligature or the ecraseur is demanded. Even in case the pedicle is as small as an ordinary lead pencil the ligature or ecraseur is the safer plan, if the pedicle is firm, round, and rigid. In case the pedicle is very thin, but as broad as the finger, the ligature or ecraseur is demanded. If the pedicle is thin,

loose, and not more than a fourth of an inch in width, torsion may be attempted. In removing a polypus by *torsion* the tumor is seized with the long-handled uterine dressing forceps, if it is of very small size (and if of the size of a hickory-nut, or larger, with the vulsellum forceps, or the tumor forceps), and the tumor is then twisted around and around upon itself a half-dozen times; at the same time we make slight traction. If the pedicle is not twisted off by this

FIG. NO. 38.—NÉLATON'S TUMOR FORCEPS.

much effort we should desist in our efforts to remove it in this manner, for serious cellulitis, metritis, or endo-metritis might result from great violence in efforts to remove by torsion. Torsion failing, we should remove with the ecraseur, or the ligature, and scissors, as in cases of polypi with thick pedicles.

SPONGE TENTS.—In case we feel quite sure in our diagnosis of a fibrous polypus of large size, we should provide ourselves with sponge tents of much larger size than are usually kept for sale. We should have at hand some as large as the finger, and others much larger, so that we may obtain a dilatation which will enable us to get at the polypus. The largest sponge tents kept on sale do not dilate the cervical canal more than to about the size of the finger, and this is not large enough to enable us to do more than to make a positive diagnosis. We had better also be prepared to proceed with the removal of the tumor as soon as the cervix is dilated, in case the patient's strength is sufficient to justify the attempt.

The tent should be dipped into carbolized olive oil before

it is inserted; and the tent should be inserted with the sponge tent applicator. (See cut.) A size of tent should be selected which can be readily introduced. This first tent may remain from twelve to eighteen hours, when it should be removed, and another inserted as large as can be introduced. This may remain till fully expanded, then removed, and have another still larger inserted, till we can seize the polypus with the vulsellum forceps, and draw it down, or pass the loop of an ecraseur chain over it, and by tightening it sever the pedicle (the tent effectually controls the hemorrhage).

FIG. NO. 39.—EMMET'S APPLICATOR.

Sometimes voluntary uterine contractions come on, and sometimes we may induce them by giving *Secale cor.*, in doses of twenty drops of the *Flu. ext.*, or 3 doses of the *Tr.* in warm water every half hour till three doses are used. In this way the polypus sometimes is expelled into the vagina like the head of a child in regular labor. I have seen them delivered into the vagina of so large a size that they completely filled the pelvis, being as compact as the head of a large child at full term. In this case the operation for removal is very difficult, but it can be accomplished with the use of some ingenuity.

In these cases the chain of the ecraseur is not long enough to allow of making a loop large enough to pass over the tumor, and we must lengthen it with a wire. We fasten the extremity of the loop to a silver male catheter with a thread, and carry it up by this means, having the ecraseur held by an assistant, while we direct the catheter with the right hand, and expand the loop of the chain with the fingers of the left, and after getting the extremity of the loop up over the tumor press the handle of the ecraseur up on the opposite side of the polypus, and tighten the loop at the same time by making traction on the chain till we have it firmly adjusted about the pedicle, when we slip the chain

into its fastening, and proceed to turn the screw, and sever the pedicle.

When the polypi are not larger than the fist they may be seized by the *vulsellum forceps*, and drawn down even exterior to the body in some cases, bringing the pedicle into view between the labia, when the ecraseur may be easily applied, and the connection severed. We should then at once examine thoroughly to see whether or not we have inverted the uterus, and if so at once replace it. This will not occur unless the attachment is near the fundus.

If the attachment of the pedicle is near the cervix the drawing down of the uterus gives no trouble, as upon the severance of the pedicle the organ is spontaneously replaced through the influence of atmospheric pressure, and the elasticity of the connective tissues put upon the stretch when the womb is forcibly drawn down. The wire ecraseur is recommended by some authors as less likely to break than the chain; but I much prefer the chain, as there is less danger of hemorrhage with its use, and with care and skill a chain is seldom broken. Formerly ligature was employed, using it singly if the pedicle was not very large, and double if large—*i. e.*, transfixing the pedicle with a needle armed with a double ligature, and tying one on either side, and then cutting off the pedicle a short distance from the ligature; of course, between it and the body of the polypus. Others leave the polypus to drop off when the ligature has caused a sufficient slough to enable it to do so. Others have applied a ligature around the pedicle, and passed the ends through a double canula, and tightened them daily as they became loose from the cutting into the pedicle of the loop around it.

Objections to the Ligature.—The use of the ligature is open to the following objections: 1st. it is unnecessary; 2nd. It is more liable to give rise to hemorrhage than when the pedicle is severed with the chain ecraseur; 3rd. It is

more liable to cause inflammation; 4th. It is tedious, and causes offensive and irritating discharges, which are mostly avoided in removal with the ecraseur; 5th. The proper use of the ligature requires more skill, unless the tumor is small and can be drawn out of the vagina, in which case, it is better to remove the polypus at once, in our opinion, than to ligate it, and be troubled with the slough for some time afterwards; 6th. In polypi with large pedicles they are usually so short, that there is not room to cut off the tumor, without loosening the ligature, which might give rise to alarming, if not dangerous hemorrhage, while in the use of the chain ecraseur, the tissues are crushed off, and the shreds of the torn blood vessels arrest the flow of blood, and the lacerating process as produced by the use of the ecraseur is well known to be little likely to cause hemorrhage. I have never had troublesome hemorrhage from the use of the ecraseur in the removal of fibrous uterine polypi, though I have removed a great number in this manner. And I believe this is the experience of all others who use the instrument.

Anæsthetics.— The use of anæsthetics is not generally necessary in the removal of either variety of uterine polypi, except in some cases of exceedingly nervous women, who suffer so much from fear, that it is better to give them an anæsthetic. In a few cases this is desirable during the use of sponge tents on account of the suffering induced by their dilatation; but this is not usually the case, as the expansion of the tent does not, as a rule, produce severe pain. The *fibrous polypus* being destitute of nerves, the severing of the pedicle with the ecraseur gives little or no pain, even when it is of large size.

Various kinds of Treatment under various Circumstances.—Sometimes after we have severed the pedicle in the uterus the tumor is not readily extracted through the os, and it may become necessary to seize the tumor with the *vulsellum forceps* and incise it freely in order to extract it. This is not,

however, absolutely necessary, for if we wait a few days uterine contractions will come on and expel the polypus, which is lying loose in the uterine cavity.

Sometimes the tumor is so large as to distend the vagina severely, and it may become necessary to relax the os vaginam with *Bell. ointment* and the *inhalation* of *Chloroform*, while we extract the tumor with the ordinary obstetrical forceps.

In case we dilate the os uteri fully, and find the polypus attached to the fundus by a broad, short pedicle, what is to be done? First, we may attempt to pass the chain of the ecraseur around it, and for this purpose Edward's ecraseur is the best (in our opinion), using Sims' guide to raise the chain into

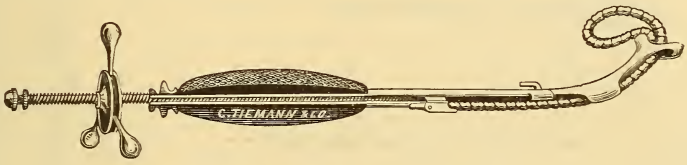


FIG. NO. 40.—EDWARD'S ECRASEUR.

position. Should we fail in adjusting the chain around the tumor properly we may incise the polypus and enucleate it with the *vulsellum forceps*, or we may incise it and push into the incision with a long probe, or uterine sound, a good sized piece of lint, and leave it there several days, to establish suppurative or ulcerative action in the tumor. Or we may insert a long sponge tent up by the side of the tumor, and thereby excite uterine contractions, and hence exert great pressure upon the polypus, which may cut off its supply of blood, and strangulate it, causing it to soften and decay, when we may take it away piecemeal with the vulsellum forceps, or we may allow nature to slough it off.

To Dr. J. Marion Sims* are we indebted for a knowledge of the efficacy of sponge tents in destroying fibroid polypi. He accidentally made the discovery by placing a sponge tent in the uterus and forgetting it about a week, when, upon the

*Sims' Uterine Surgery.

removal of the tent the polypus was found destroyed. I have proven this to be an efficacious means of destroying those fibrous polypi which we could not conveniently remove by ordinary operation. I have not left a tent longer than thirty-six hours in the uterus; but upon removing it I have inserted another (after washing out the vagina with injections of warm carbolized water), and letting it remain another thirty-six hours, and have thus caused the destruction of large fibrous polypi, so that I removed them piecemeal with the vulsellum forceps. Needles

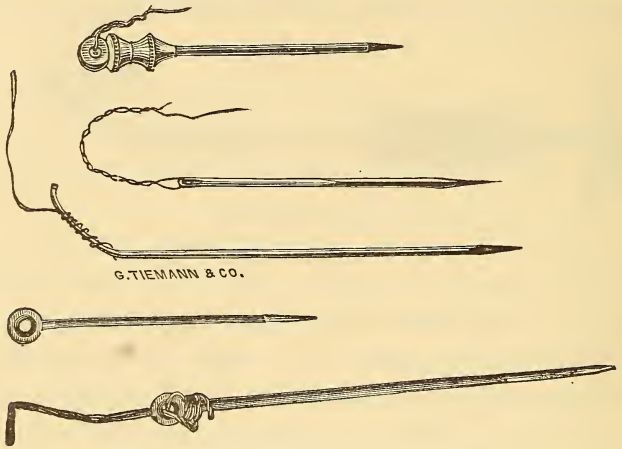


Fig. No. 41.—Electrolysis Needles.

charged with electricity have been used to destroy these polypi, as have injections of *Tr. Iron* or *Iodine;* but we deem these measures inferior to those previously described.

Fig. No 42.

After Treatment. — After the polypus has been removed, there is usually little treatment required beyond giving a nourishing diet and requiring rest in the recumbent position. Should there be great exhaustion *China*, *Ars.*, *Nux*, *Rhus*, *Sepia*, *Ferrum*, *Ignatia*, *Phos.*, or *Canthar.*, may be indicated by the totality of the symptoms. But the symptoms requiring these

remedies are to be considered complications indirectly caused by the operation and not the result necessarily of it. I have had cases complicated with *torpid liver, jaundice, spinal irritation, worms* in the intestines, etc., which conditions could not more than indirectly be dependent upon the polypus, and not in the least upon the operation; and we do not see the need to mention every remedy in the Materia Medica because a possible complication might arise demanding their use.

Treatment of Single Cystic Polypi.

It is well in the case of the single cystic polypus of the uterus to dilate the cervix to the size of the finger, that we may more easily ascertain the locality of its attachment. If the tumor is ruptured we may ascertain this with the finger; if not ruptured, we may gently insert the uterine sound (in case we are sure, from the symptoms and history of the case, that pregnancy does not exist); then, after ascertaining the location of the pedicle, we rupture the sac and draw it out of the cervix with a pair of straight, long uterine dressing forceps. Now introduce a Wocher bivalve or a Dawson's improved Sims' speculum (see chapter on "Instruments"), and bring the membranes of the sac into view. We now pass into its interior a long brush or swab saturated with *Comp. Tr. Iodine* diluted with *Glycerine* one-half, having the patient lie upon the side to which we have found the tumor attached, so that the *Iodine* may gravitate about the pedicle on its interior. After allowing the *Iodine* to remain about an hour, we wash out the sac with warm water, then seize hold of the membranes with the forceps, and, after drawing them down as far as possible, sever them with long scissors as high up in the cervix as we can reach. This process keeps the *Iodine* from direct contact with the uterine tissues, and it operates to produce adhesive inflammation in the interior of the pedicle. Three cases I have treated in this way have proven successful. One case was complicated with retro-

flexion. The after treatment is to be conducted upon the same principles as in the removal of the fibrous polypus of the uterus.

Treatment of Hydatids of the Uterus.

The hydatid uterine polypus is to be treated by dilating the cervix and breaking up the mass with the finger or the curette. Usually when a part is thus broken, the uterus contracts and expels the remainder. If it does not we may give *Secale cor.* in doses sufficient to induce contractions, and we may aid their production by frictions to the inner surface of the uterus with the finger. After their expulsion we swab out the interior of the uterus with *Comp. Tr. Iodine* diluted with *Glycerine* five times, or *Argent. Nit.*, five grs. to the oz., laying the patient upon the side to which the pedicle was attached. This application may be repeated two or three times at intervals of two days.

Treatment of Vascular Uterine Polypi.

This polypus, which is very rare and bleeds from its own surface (being largely supplied with blood-vessels), is really an enlarged glandular polypus, whose covering (the mucous membrane) has through inflammatory action developed large blood-vessels over its surface, and requires ligation. It is usually soft, and may be drawn out with forceps, and ligated after dilating the cervix with sponge tents. Before the ligature is applied, we should twist the tumor several times around, that the blood-vessels of the pedicle may be made as tortuous as possible.

The ligature may be most conveniently applied by means of the double canula, but we should not tighten it too much. The ligature should be just tight enough to strangulate the pedicle, without cutting into it. Every two days the ligature should be tightened, till a slough is caused, and the tumor becomes detached; after which the case is to be treated with

homœopathic remedies, according to the total indications. *Warm water vaginal injections* are always in order, after the removal of either variety of uterine polypi.

Treatment of Mucous Polypi of the Cervix and Vegetations of the Endometrium.

The general principles of treatment of these varieties of polypi are the same.

Ipecac, *Aconite*, *Nux*, *Ferrum*, etc., are often indicated. Usually patients affected with these small polypi do not have such an excessive and alarming hemorrhage as in instances of the larger varieties, although in exceptional cases the hemorrhage is great from very small polypi.

Should there be very free hemorrhage, no time should be lost before we introduce the sponge tent, and we should select the size which will fill the cervical canal before it begins to expand, so that as it expands it will exert a decided pressure upon the growths situated in the cervical canal; this compresses the pedicles of those hanging out of the cervix, and arrests the flow from those above the neck of the organ. The *tent* should be dipped into *carbolized olive oil* before it is inserted. After using the tent, any small polypi hanging from the cervical canal may be removed by torsion.

After obtaining a dilatation as large as the finger, we should ascertain by digital examination whether or not there are any growths in the uterus above the cervix; for this purpose we may draw down the uterus with a strong tenaculum, and insert the finger to the fundus uteri and thoroughly explore its cavity. If we are able to feel any growths in the uterine cavity which appear to have slender attachments, we may pass up by the side of the finger a slender pair of forceps, seize the growths, and remove them by torsion. If the attachments seem large or if the growths are numerous, the interior of the uterus should be swabbed thoroughly with *Arg. Nit.* 20 *grs.* to the *oz.*, or even 30 *grs.* may be used if a few

applications of the 20 *gr. solution* does not cause the growths to drop off in a week or ten days, using the swab every two days. (This is the method of treatment I used in the case mentioned in general description of uterine polypi represented by Fig. No. 36.)

These large vegetative growths of the body of the uterus, of the nature of enlarged mucous polypi, are of rare occurrence. Usually the mucous polypi are confined to the cervix, and are destroyed by means of the pressure exerted by the use of two or three sponge tents. Sometimes only one tent is necessary to secure the complete destruction of these growths, or of enlarged granulations in the cervical canal.

This treatment I like much better than the application of the *solid Nit. of Silver*, which has been so extensively used. The caustic gives greater danger of atresia following its use (closing up the cervical canal, so that impregnation is impossible), and in other cases where there is only partial closure of the cervix, and pregnancy occurs, the danger of laceration of the cervix becomes very great, and the implication of the bladder in the laceration is to be feared; hence, caustic applications in the cervical canal should be avoided.

After we have destroyed the granulations, or mucous polypi, of the cervix with the sponge tent, we should daily, or every two days, pass a bougie, well oiled with *Vaseline*, till the raw surface from which the polypi have been removed is well healed, using a vaginal wash of *Calendula and water* daily, and giving such internal remedies as the totality of the symptoms demand, with such nourishment as will be most easily digested and assimilated. This method of treatment gives promise of no further trouble by reason of the development of new granulations, or mucous growths, as by these means we secure the development of the healthy mucous membrane in the cervix, which if left without this care after the use of the tents would probably soon produce a new crop of polypi.

CHAPTER XXVIII.

MOLES IN THE UTERUS.

Moles in the uterus, sometimes called *molar*, or *false pregnancy*, consist of a fleshy mass, to which is attached a sac filled with fluid resembling the amniotic liquid. The fleshy part of the mole resembles the fleshy part of the placenta. Upon rupturing the sac no fœtus, or even the remains of one, are to be found. Moles develop to various sizes, varying from an inch to four or five inches in diameter.

Etiology.

Authors speak of blighted conceptions, injuries to the patient, etc., as causing moles, but I do not know that any of them offer any *satisfactory explanation* of their causation.

I have a theory regarding them, which may be correct or not; still, as good, perhaps, as any yet advanced. I believe they result from the small number of spermatozoa which penetrate the ovum. My reason for this idea is, that I have found, and I am told by other physicians of large experience that they also have observed, that moles most frequently develop in those women who take pains to prevent pregnancy by using a syringe after connection, or in cases where the husband withdraws before the ejaculation of semen (as he thinks, but probably a small portion is left in the vagina, as it is also likely that in some instances a small part of the semen is left after using the vaginal syringe). I expect that future observations will also show that in those cases where these attempts to prevent conception are not made the semen will be found to be deficient in a normal amount of spermatozoa, and the deficient impreg-

nation will be, in most cases, found dependent upon their deficiency in numbers or strength.

We do not know whether or not a single spermatozoon is sufficient to impregnate the ovum so as to cause the development of a healthy fœtus. I *claim* that it *is not;* neither do I believe that a very small number can do it. The requisite number I can not at present even approximate, but *I am satisfied it is large.* One reason for my belief is to be found in the development of moles under the circumstances named; and another is from the fact that nature produces spermatozoa in such immense numbers; and it is reasonable to suppose that *nature does not waste her forces* by producing thousands when only one is needed. A single ejaculation of semen was evidently intended for a single impregnation. I do not think it reasonable that nature produces a hundred times as much semen at each connection as is adequate to produce healthy conception. All the secretions of the body are furnished nearly in the amount required for the purposes for which they are secreted; never, in health, very greatly in excess. Why, then, should we imagine nature made such a mistake as to furnish a hundred times as many spermatozoa in a single ejaculation of semen as is required to produce impregnation?

Constriction of the cervical canal tending to prevent the free ingress of semen, is also a cause of the production of moles by preventing the free ingress of the semen into the uterus.

Diagnosis.

The diagnosis of a mole in the uterus is sometimes difficult. There are present in some cases symptoms indicative of pregnancy, the menstruation being entirely suspended, and the uterus becoming somewhat enlarged, with the occurrence of nausea and enlargement and tenderness of the breasts. In other cases there is only partial arrest of menstruation; and in still other cases it is not at all diminished, and in a

few instances the flow is excessive, and there is more or less loss of blood during the interval between the times of the regular catamenial flow. The uterus ceases to enlarge in two or three months, and the patient complains of faintness, weight in the pelvis, pain in the small of the back, etc. These symptoms going on for six or eight months, and the organ remaining about the size it would be when there was a two or three months' pregnancy, give us good reason to suspect a mole in the womb, especially if we know the patient has been trying to avoid conception.

Still, these symptoms are not positive evidence of the existence of a mole, as there might be a dead fœtus remaining in the uterus causing them, or there might be present sub-acute metritis or endo-metritis. These diseases have, however, other symptoms which should enable the physician to differentiate.

In other instances the patient has noticed no peculiar symptoms (this makes diagnosis more difficult), her complaints being such as might result from displacement of the uterus or from slight pelvic inflammation. I will relate a case in illustration.

Not long since a lady came to me from Illinois suffering, as she and her family physician supposed, from retro-flexion of the uterus with dysmenorrhœa. Her trouble had been of several years' standing, and although married (for ten years) and well formed, she stated that she had never been pregnant. In about two days after replacing the uterus with the sound, which I had great difficulty in introducing, I was surprised to be called to her in haste, when I found her suffering with symptoms of a threatened miscarriage. She had hard, regular uterine contractions, but no hemorrhage. (Her menstruation had been regular, though scant and painful, and she being very anxious to become a mother, I had not thought of the possibility of pregnancy, nor was there a single symptom in her case to indicate it.) But here were the pains, and

I could only diagnose a small uterine tumor of some kind, though I had not found any enlargement of the uterus more than is common in cases of retro-version. The pains went on; in fact, I did not try to stop them, and my patient was soon delivered of a mole, with the sac entire, about as large as a very small hen's egg. On opening the sac I found it to contain nothing but a liquid resembling the amniotic fluid. No vestige of a fœtus or placental chord could be discovered, though there was the fleshy part resembling a placenta.

I have delivered, I think, six of these moles in my experience of over twenty years, which shows their rarity. All of the others were, however, larger than this, but showed the same anatomy and appearance.

Prognosis.

The prognosis is always favorable. Moles of the uterus usually are expelled by the efforts of nature, and there is little danger to life if the patient is not imprudent.

Treatment.

Upon the subject of treatment little can be said, except to give the remedies homœopathically indicated by the totality of the symptoms in each case. Usually the positive diagnosis of moles in the uterus can not be made, hence we are *not* justified in instituting any operative treatment unless sufficient time has elapsed to place conception out of the question, or at least make us sure that healthy, normal gestation is not going on. When this is sure, by the lapse of time, and there are any urgent symptoms demanding prompt action we may insert the uterine sound and break loose the attachments of the mole, as we would separate an adherent placenta after abortion, by sweeping it gently around the internal surface of the uterine cavity. Uterine contractions will then soon come on and expel the mass.

In case the sac is accidentally ruptured before we see

the patient, the treatment to be used is the same as if the case was one of miscarriage. Uterine contractions are to be excited by cold applied to the epigastrium, by irritating gently the interior of the cervix with the finger, by giving *Secale cor.*, in doses sufficient to strengthen any feeble uterine contractions present. Tampon the vagina with the gum elastic bag in case of excessive hemorrhage, and give *Aconite*, if the pulse is rapid and wiry; *Ipecac*, if there is nausea or vomiting; *Bell.*, if there is passive hemorrhage with dilatation of the pupils and the rapid soft pulse.

After the expulsion or delivery of the morbid growth, *China* will usually be indicated if there has been great loss of blood, and there is much exhaustion; *Ferrum*, for the pale anæmic countenance; *Nux* or *Phos. ac.*, when there is loss of strength, poor appetite and weakness of nerve force; *Ignatia*, *Bell.*, or *Verat.*, if there is jactitation of the muscles, or a tendency to spasmodic action; *Puls.*, where there has long been *Amenorrhœa*, with weak digestion, and pain in the small of the back or ovaries.

The patient should rest in bed in the horizontal position for several days, after the expulsion or artificial delivery of a mole, and nourishing, easily assimilated food should be freely given. Stimulants, tea and coffee, should be avoided. Cool water may be drank quite freely.

CHAPTER XXIX.

CATARRH OF THE UTERUS AND VAGINA.

CATARRH of the uterus is by many authors discussed as *endo-metritis*. It is true there is some inflammation of the lining membrane of the uterus in cases of catarrh of this organ. Still there should be a careful selection of terms, so as to indicate the state of the case we wish to describe.

The term *catarrh* suggests to the mind the idea of excessive, offensive discharge from the part affected. The term *catarrh of the uterus* should, in our judgment, be restricted to those acute attacks of irritation of the endometrium caused from cold, coming on suddenly in women or girls previously healthy, and sometimes affecting the whole system at the same time.

The inflammation of the endometrium produced from other causes than cold I would term endo-metritis.

The attack of *endo-metritis* may be acute; but it is not characterized by the free discharge of mucus and muco-purulent, or bloody matter, as in cases of *catarrh of the uterus*, or *catarrh* of the *uterus* and *vagina* combined. An inflammation of the vagina caused from excessive coitus, strong vaginal injections, ascarides, the wearing of a vaginal pessary, or the introduction of irritating substances into the vagina, could not properly be termed catarrh of the vagina; hence we see the propriety of restricting the term catarrh of the vagina to cases caused from cold, and that the term should indicate that the attack was sudden, and that there was also a profuse leucorrhœal discharge at the same time.

Etiology.

The main direct cause of catarrh of the uterus or vagina, is cold; but there are certain predisposing causes as well. The condition of the general system has much to do with the liability of the patient to take cold at any time, and the condition of the uterine organs at times is such as predisposes to a cold, when under other conditions the parts would be unaffected. Just before the menstrual period for a few days, during the flow, or just after its cessation, women are most likely to be attacked with catarrh of the uterus and vagina. This is due to the heightened nerve sensibility of the parts at this period, and, to the congested condition of the capillary circulation before and during the flow.

This heightened nerve sensibility in the uterine organs produces a sympathetic sensitiveness in the whole nervous system. Hence the patient is not only more sensitive to cold, but also, to all influences affecting the nervous and circulatory systems.

The wearing of thin-soled shoes, and insufficient underclothing; going into the cold, from a warm room, whether it be a theatre, church, or room in a private house, without a sufficient amount of extra clothing, is a fruitful source of cold, which in those persons predisposed to an attack of *catarrh* of the *uterus* or *vagina* might develop either or both of these diseases. Bathing in cold water, at the menstrual period, or in a cold room in cold weather, is also very liable to produce these diseases.

Diagnosis.

The attack of catarrh of the uterus or vagina is ordinarily characterized in its commencement by the occurrence of a chill. This chill sometimes affects the whole body, and sometimes is confined mainly to the hips, lower limbs, and lower part of the back. This chilliness is often accompan-

ied with nausea. In a period varying from half an hour to several hours reaction comes on, and a fever follows. The fever is sometimes quite continuous for several days, and sometimes comes and goes at irregular intervals. The patient complains of weakness and lassitude, often with a disposition to sleep, with pain in the small of the back, and a bearing down pain in the pelvis and lower part of the abdomen.

Within a day or two after the commencement of an attack of catarrh of the uterus or vagina, or both, there appears a profuse slimy greenish or yellowish white vaginal discharge, which is in some cases mixed with streaks of blood. The discharge (if not at first) soon has an offensive odor. The patient complains of headache and occasionally has some pain in passing urine, which indicates the bladder complication in the catarrhal condition. The eyes look blood-shot and watery, the pulse is rapid and wiry. The patient is not inclined to walk about. She complains of heat in the vagina, and some pain in the uterus.

A digital vaginal examination reveals heat and tenderness in the vagina. The labia and vulva are sometimes swollen. If we introduce a vaginal speculum, we see the os and cervix as well as the vaginal mucous membrane red, and the capillaries congested; and if the catarrh affects the uterus, there is a discharge oozing from the os uteri of the character before mentioned. The examination with the speculum is usually very painful, and we may, in most instances, omit it. The diagnosis is usually made correctly from the history of the patient and the other symptoms enumerated, aside from any physical examination of the parts.

Differential Diagnosis.

The disease most likely to be confounded with catarrh of the vagina, is gonorrhœa. It is sometimes very difficult to differentiate between them. Usually the history of the case,

and the character, circumstances, and age of the patient aid materially. In gonorrhœa, there is commonly more pain in passing water, more intense heat in, and more swelling of, the labia than in catarrh of the vagina.

We must, however, bear in mind, in considering the history, the age, and character of the patient, that innocent persons may have gonorrhœa. The wife may have innocently contracted it from her husband; a vicious domestic may have placed some of the gonorrhœal matter from her own person between the labia of a young girl, or she may have purposely or accidentally smeared the seat of the water closet with this matter. General symptoms of a cold are not present in cases of gonorrhœa, and not always, 't is true, in vaginal catarrh.

The discharge from a case of catarrh of the vagina, resulting from cold, may produce inflammation in the urethra, and in the glans penis of the husband, and produce such a train of symptoms as to make it impossible for the physician to distinguish it from ordinary gonorrhœa from impure connection. (The same may be said of the leucorrhœal discharge, caused from endo-cervicitis or endo-metritis.) Hence the physician should be very *cautious* about disturbing the peace of families by deciding a case to be gonorrhœa from impure connection, unless he has good evidence to justify him, and even then it may be better in most cases to give the patient the benefit of any doubt he may have.

Treatment.

Aconite is usually the indicated remedy in the commencement of an attack of catarrh of the vagina or uterus, especially if there is dryness and heat of the skin, a rapid and wiry pulse, thirst, nausea, etc.

Bell., when there is dullness and fullness of the head, flushed face, and bearing-down pains in the pelvis.

Bry., if there are sharp stitches in the back, side, or chest.

Sepia, *Cal. carb.*, *Can. sat.*, *Cubebs*, *Copaiva*, *Cimicif.*, *Cantharides*, etc., are indicated after the first few days, giving them according to the totality of the symptoms. *Cubebs*, *Can. ind.*, *Cantharides*, or *Copaiva* are indicated for cutting, burning pains in urinating, as is *Sepia* or *Cal. carb.*, for the profuse vaginal discharge.

Should the disease progress without abatement *Ars.*, *Sulph.*, or *Rhus tox.*, are frequently indicated. (See remedies for leucorrhœa.)

As adjuncts to the indicated remedies we will mention the warm foot bath, warm water vaginal injections, and the warm sitz bath, used daily or twice a day. The patient should abstain from exercise, and recline a great part of the time. Large quantities of cool water should be drank. The food should be gentle, bland, and non-stimulating.

CHAPTER XXX.

HERNIA OF THE OVARY—HERNIA OF THE UTERUS, OR HYSTEROCELE.

HERNIA of the uterus (*Hysterocele*) is very rare, as is also hernia of the ovary. In hernia of the ovary, the uterus is displaced also, but does not pass through the inguinal ring. The uterus may pass into the crural ring, producing *crural hernia* of the uterus, but I can find but two cases on record. One was congenital, the other in a woman aged eighty-two years. The uterus is irreducible in these cases, and I mention this condition simply to record the possibility of its occurrence.

Hernia of the ovary is more frequent. It is most frequently found as an inguinal hernia. This occurs as a result of the formation of a *processus vaginalis peritonæi*, like that in the male, and directs the ovary into the labia.

Just how frequently this displacement occurs it is impossible to tell, as the descriptions given by writers do not clearly indicate (in many instances) whether the inguinal hernia mentioned by them in connection with, and synonomous of, hernia of the ovary, were in all cases really hernia of the ovary. Englisch, for instance, is reported by Schroeder* as finding nine cases of double inguinal hernia in a total of twenty-seven cases. *Neither Englisch nor Schroeder* say plainly that these were cases of hernia of the ovary, although they are mentioned under the head of inguinal hernia of the ovary; and the presumption is that they were of this class.

In cases where the patient has had an inguinal hernia of the bowels previous to gestation, hernia of the ovary is liable to come on during labor.

* Ziemssen's Cyclopædia, Vol. X, p. 355.

Hernia of the ovary may be congenital. In this case the condition is somewhat the analogue of that in the male when the testicle is retained in the abdomen. *Crural, abdominal, vaginal,* and *ischiatic hernia* of the ovary are occasionally found to exist.

Diagnosis.

The symptoms of inguinal hernia of the ovary are pain, heat, swelling, etc., in the inguinal region. On examination a hard tumor is felt, like an enlarged inguinal gland, for which it is very liable to be mistaken. The tumor is pear-shaped, and of about the size of a hen's egg. General symptoms of inflammation are sometimes present, but not always. Vaginal hernia of the ovary takes place after a rent is made in the vagina from severe labor. The ovary is, of course, discovered in the vagina by physical exploration. Abdominal hernia of the ovary can not be diagnosed during life.

Differential Diagnosis.

Hernia of the ovary is liable to be confounded with hernia of the bowel, and with enlargement of an inguinal gland. In hernia of the bowel, the tumor is softer and usually larger than in hernia of the ovary. When there is hernia of the ovary, the tumor usually enlarges just before the menstrual period, which, of course, is not the case in glandular enlargement. By passing a sound into the uterus, and moving the organ, or moving it with the finger in the vagina, we feel the tumor move at the same time, if it be a hernia of the ovary, which would not be the case if it was a hernia of the bowel or an enlarged inguinal gland.

Prognosis.

The prognosis of the hernia of the ovary must depend upon the *age* of the *patient* and the possibility of its reduction. If it can be reduced, there is little danger to be apprehended. In quite old women the prognosis is more favorable

than in the young or middle aged. In the latter classes there is greater liability to inflammation in the tumor; in fact, inflammation is almost sure to occur sooner or later. The inflammation may result in resolution, suppuration, or undergo cystic degeneration. *Cancer* of the tumor has also been developed in these cases in a few instances.

Treatment.

In cases of congenital hernia of the ovary while the girl is young nothing is to be done; in fact, the displacement is seldom discovered in girlhood. As puberty comes on, and we find we can not reduce the displacement of the organ by taxis, it is best to wear a cup-shaped shield, to protect the tumor from injury.

If there is much tenderness, cloths wet with *Tr. Aconite*, one part to four parts of water should be applied warm, and the same remedy in attenuation given internally. The reduction of the hernia is out of the question in those cases which are congenital; hence it is best that remedies be used to subdue as much as possible the normal activity of the circulation, consequent upon the process of ovulation. These remedies are the *Bromides* and *Camphor*. These remedies should be given in attenuations sufficiently low to produce the desired effect, and marriage should be forbidden. The sexual passion should never be excited in these cases. Seclusion is the best for girls so afflicted.

In those instances where hernia of the ovary comes on during labor, an effort should be at once made to replace the organ by taxis, using those means taught in works on surgery for the reduction of inguinal hernia of the intestines. Taxis failing, resort should be had to the shield to protect the organ from external injury, and the remedies already mentioned should be given, and sexual congress interdicted.

In cases where the pain is intolerable the ordinary operation for strangulated hernia of the bowels may be per-

formed. After opening the sac of the hernial tumor, if it be found impossible to return the ovary into the abdomen, we may ligate the ligament of the ovary and the vessels surrounding it with *catgut ligature*, and remove the ovary with the knife. We may then pass the pedicle back into the abdomen if it can be easily done, or we may leave it in the inguinal canal, closing the incision in the integument by interrupted suture and adhesive plaster, and dress with *Calendula* wash applied warm, using one part of *Tr. Calendula* to three parts of water. *Arnica* should be given internally. This operation is a grave one, and is *not* to be performed except in cases of great urgency. *Holmes*,* *Guersant*,† and *Englisch*‡ operated with fatal results. Pott,‖ Lassus,§ Meadows,¶ M'Cluer,** Deneux,†† and Barnes‡‡ have operated successfully.‖‖

In crural hernia of the ovary the same principles of treatment govern as in the inguinal variety. The displacement in ischiatic hernia of the ovary is of secondary importance should suppuration take place.

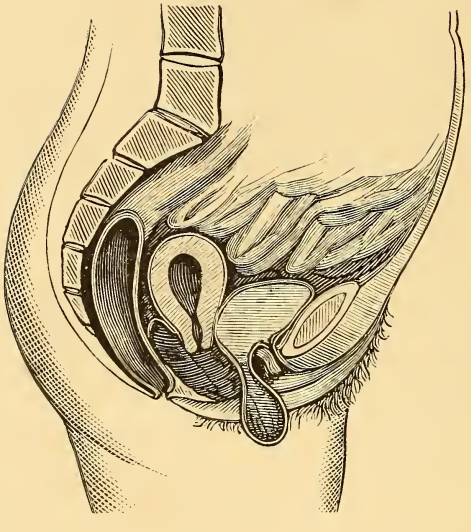
In cases of inguinal or crural hernia of the ovary, with suppuration, the pus should be aspirated, and the sac injected with *Dilute Comp. Tr. Iodine*, which should also be aspirated from the sac in about fifteen minutes, and pressure with compresses applied as firmly as possible.

In *cystic degeneration, the ovary* should be removed by operation as before mentioned.

Vaginal hernia of the ovary is to be treated by replacing the organ and stitching together the sides of the rent in the vagina in a similar manner as is done in cases of vesico-vaginal fistula, freshening the edges of the laceration, if it is not recent.

* London Lancet, January, 1864. † Bull de Therap., 1865, page 28. ‡ Ibid., page 340. ‖ Œuvres Chir., T. I, page 492. § Pathol. Chir., Paris, 1806, II, page 98. ¶ Trans. London Obs. Soc'y, III, page 438. ** Ibid. †† Ibid. ‡‡ Ziemssen's Cyclopædia, Vol. X, page 357. ‖‖ Barnes' Diseases of Women, page 267.

Plate XVI.



CYSTOCELE.

CHAPTER XXXI.

PROLAPSE OF THE VAGINA, CYSTOCELE, RECTOCELE, ENTEROCELE, AND OVARIOCELE.

The vagina may prolapse in part or wholly. When the anterior wall is prolapsed, and the bladder is prolapsed with it, it is termed *cystocele*. (See Plate No. XVII.) When there is prolapse of the posterior wall only, and the prolapsed portion contains the rectum, it is termed *rectocele*. If the prolapsed portion contains a portion of the small intestines, it is termed *enterocele*; and the name *ovariocele* is given when the ovary is contained in the prolapsed vagina.

In speaking of prolapse of the vagina, it is understood that it is the lower portion which protrudes beyond the os vaginam, and has no reference to the inversion of the tube, which takes place in *procidentia uteri*. In *ovariocele* there is probably always present a lateral displacement of the uterus at the same time. *Enterocele* has been thought by some an impossibility in this locality, but Fehling* has reported a case in which "the patient, in attempting to replace the large prolapse of the vagina, ruptured the posterior vaginal wall at the posterior *cul de sac*, and died in consequence of the protrusion of the intestine, which could not be reduced." This case shows the possibility of such a dilatation and prolapse of *Douglas' cul de sac* as to allow of *vaginal enterocele*.

Women are not liable to any form of prolapse of the vagina before being delivered of a child.

Etiology.

Severe straining during labor while the head of the child is partially within the vagina, and while the vagina is not

* Ziemssen's Cyclopædia, Vol. X, p. 504; also in Arch. f. Gyn., B. VI, p. 103.

fully relaxed, tends to produce this difficulty. The head of the child may be impacted in the vagina, and in this state of affairs the pains of labor are calculated to tear loose the attachments of the vagina, or carry it down as the head advances, and with it the bladder or rectum, or both; and sometimes the uterus and some of the small intestines are pressed down to the vaginal outlet. The laceration or stretching of the pelvic connective tissue in these circumstances allows of the prolapse of the vaginal walls.

The elongation of the vagina which takes place during gestation tends to the giving way of its attachments, and predisposes to vaginal prolapse after delivery is accomplished. The relaxed condition of the *intestinal supports*, subsequent to labor, allows of their displacement downwards, and tends to produce *cystocele*, and also allows of the distension and relaxation of *Douglas' cul de sac* and the production of *enterocele* or *ovariocele*. Rectocele is produced in part by constipation, impaction and distension of the rectum, etc., causing severe straining at stool.

Diagnosis.

The general symptoms of prolapsus of the vagina are similar to those in prolapse of the uterus. The patient complains of a sense of weight in the vagina, of fullness at the vaginal outlet, of difficult micturition in case of cystocele, and of difficult defecation in case of rectocele. The protruded mass may be felt or seen. In rectocele we are able to pass a curved male sound into the anus and around forwards into the dilated and prolapsed rectum forming the bulk of the tumor.

By emptying the rectum, we may discover the contents of the prolapse of the vagina to be the ovary (if it be there), by pressing the tumor between four fingers, placing two in the rectum and two in the vagina. In this manner we make out the presence of the ovary by its hard, egg-like feel;

likewise if the case be enterocele, we feel the intestine, like a small, half-filled link of sausage, rolling between the rectal and vaginal wall.

If we suspect *cystocele* we should pass a male catheter into the bladder, and if it drains the protruded mass, and the end of the instrument can be felt in it, we diagnose cystocele. If upon emptying the bladder freely the anterior prolapse of the vagina remains as large and fluctuating as before, the case would be likely to be one of vaginal cyst. I not long since had the case of a wealthy lady of this city who had what appeared to be a cystocele. On passing into the bladder an ordinary uterine sound it curved backwards, and appeared to enter the sac within the prolapsed anterior wall of the vagina; but upon passing the catheter, and evacuating all the urine, the protrusion was found as large as ever, which showed the case to be one of vaginal cyst, and was proven to be one by my passing a trocar into the sac, and evacuating it in this way, and finding the contents of the sac to consist of a thick, oily fluid, much like the white of a raw egg.

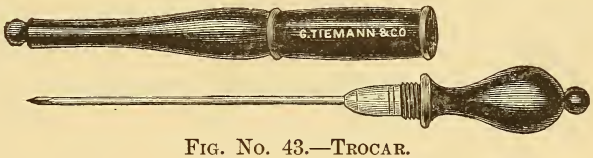


FIG. NO. 43.—TROCAR.

Treatment.

The principles of treatment of prolapse of the vagina are in some respects similar to prolapse of the uterus. There is a necessity in both classes of cases for taking off the weight of the intestines. This can be accomplished by position (lying with the body lower than the pelvis), or by means of a properly adjusted abdominal supporter. (See Plate XII.) In replacing a cystocele, or either variety of prolapse of the vagina, the knee-elbow position is the most favorable, so that we have gravity to assist us.

In cases of rectocele the impacted feces must first be

removed. For this purpose it is sometimes necessary to use a scoop. After removing all the accumulation of feces wash out the rectum with cool water, and proceed to reduce the prolapse of the rectum and vagina by gentle, steady pressure upon the mass, after smearing it well with *Vaseline*.

When the replacement is accomplished we insert at once into the vagina a large sized *gum elastic bag*, and inflate it fully, so as to press the posterior wall of the vagina well up into the hollow of the sacrum, and this will also carry up any intestinal prolapse which may have occurred, as well as lift the uterus as high as possible, and thereby lift up the vagina in consequence of its attachment to the uterus. This condition of affairs should be maintained for three or four weeks, during which time the rubber bag should be removed, washed, and replaced every four or five days. The bowels should be moved by means of warm water enemæ daily, always injecting a small quantity of cool water into the rectum after the stool, which may be allowed to remain in the bowels till the next day.

After four weeks of trial of this treatment we would advise leaving out the inflatable rubber bag for a few days (but still wearing the abdominal supporter), and see if the prolapse of the vagina returned. If it did not, the patient may be dismissed with the injunction to be careful not to lift hard, or strain in any way, using an enema of warm soap and water if the bowels do not move readily and regularly. If we found the prolapse returned partially or completely we would repeat the treatment for another four weeks. At the end of this time, if the case is not cured, it may be advisable to resort to an operation, called elytrorrhaphy, to remove the superfluous tissue from the vagina. This, however, should not be done till all other means have failed.

During the treatment above mentioned remedies should also be used calculated to build up the system. The following remedies are indicated most frequently by the symptoms:

Ars., *Bry.*, *Rhus*, *Nux*, *Bell.*, *Secale*, *Cantharides*, *Can. ind.*, *Cal. carb.*, *Ferrum.*, *China*, *Sepia*, and *Kreosotum*. Bathing the parts with cold water, and keeping the bladder and rectum empty, must never be neglected in these cases.

Elytrorrhaphy consists of incising and removing a piece of vaginal tissue, so that when the opposite sides of the vagina are brought into apposition by sutures, and adhesion results, the size of the vagina will be materially lessened. The operation is quite similar to that for vaginal fistulæ.

Operation of Elytrorrhaphy.—All other means failing, if the patient and friends desire, we may resort to the operation for lessening the size of the vagina, called elytrorrhaphy. In deciding upon an operation we should bear in mind the obstruction which the contracted vagina is liable to offer to delivery, in case of future pregnancy. Of course, if the patient is a widow not contemplating marriage, or if she has passed the child-bearing age, this objection does not stand. The piece of vaginal membrane removed should be from the posterior wall in cases of *rectocele*, *enterocele*, or *ovariocele;* and from the anterior wall in cases of *cystocele*. The piece of membrane removed should be diamond shaped.

The patient should lie upon her right side upon the operating table, with the thighs well flexed in operating on the posterior wall, and on the left side to reach the anterior wall. Complete anæsthesia should then be induced, and the keeping up of the effect be intrusted to a reliable assistant. Another assistant dilates the vagina with Dawson's improved Sims' speculum, so as to bring the wall of the vagina we wish to remove distinctly into view. We now map out the piece we desire to remove by touching the membrane of the vagina with the edge of the scalpel on the lines we wish to incise. We next hook up the vaginal membrane, and making it a little more tense, make the incision complete upon the upper side of the diamond-shaped piece; seize this membrane now where it is incised, and carefully dissect it off the diamond-

shaped piece to be removed, then cut off the piece we have dissected up.

We next place interrupted sutures, as in operating for recto- or vesico-vaginal fistula, placing the one nearest the uterus first. We use silver wire for the sutures, and twist them with our wire holder and twister. (See chapter on "Instruments," Plate VI.) The sutures should be placed about one-third of an inch apart. After the sutures are placed the patient should be carried to bed, and allowed to come out from the influence of the anæsthetic. The sutures may as well remain about two weeks. In removing the sutures the physician should be very gentle about it, so as to disturb the parts as little as possible.

Professor Beebe, of Chicago (now dead), used to recommend the removal of a circular piece of vaginal membrane; but before his death he stated in the *Illinois State Society* that he agreed with me in the advisability of removing a diamond-shaped piece instead.

CHAPTER XXXII.

PAPILLARY TUMORS OF THE UTERUS AND OVARIES, AND COCCYGODYNIA.

Papillary tumors of the ovaries are seldom met with, and demand no more than a mere mention, their development being a bare possibility, and their diagnosis ante-mortem being an impossibility. Ascites and rupture of the umbilicus were found by Eberth and Gusserow* to be dependent upon these papillary growths of the ovary; just how, I can not understand.

Papillary tumors of the uterus are so designated by a few authors. They ordinarily consist of enlargement of the papillæ of the organ from irritation long continued, as in chronic sub-acute inflammation. They sometimes take on ulcerative action, and have developed into malignant diseases in some instances. They ordinarily produce hemorrhage on being touched even slightly. The other variety of papillary tumors of the uterus are really condylomata, are pointed, and result from syphilitic contamination. Schroeder† says from gonorrhæal matter, but I have never seen gonorrhæal contamination cause condylomata of the uterus. These condylomata are usually found in connection with the same development in the vagina, or upon the external genital organs. These growths sometimes coalesce so as to give somewhat the appearance of the cauliflower excrescence, for which they have been mistaken.

Symptoms.

Generally there is a profuse leucorrhœal discharge in these cases, or a profuse watery flow, sometimes mingled with blood, passes from the vagina.

* Ziemssen's Cyclopædia, Vol. X, p. 442. †Ib., p. 269.

Treatment.

The treatment of papilloma of the uterus of the variety first described consists in the introduction into the cervical canal of a sponge tent well carbolized. This exerts steady pressure upon these tumors and the capillary circulation is restrained by it. The tent may remain twelve hours, and be followed by another. *Tr. Iodine Comp.* may be applied to those external to the os uteri. Remedies such as are indicated homœopathically by the general symptoms should be given. In the condylomatous variety *Kali iod.* and *Merc. cor.*, are indicated. They may be ligated and cut off with scissors, if few and long; or, if large, may be severed with the ecraseur. *Thuja*, *Acid nit.*, etc., are often indicated in this disease.

Coccygodynia.

To Sir James Simpson is due the honor of having first fully explained this disease, and proposed efficient means of treatment, though Dr. J. C. Knott, of New York, published short reports of two cases in the New Orleans *Medical Journal* fifteen years before. Previous to Professor Simpson's publication of his work on "Diseases of Women," pain in the region of the coccyx was supposed to be neuralgia purely. It is now known to be, in many instances, due to inflammatory action, and in some cases there is dislocation of the whole coccyx or some of its pieces.

Etiology.

The difficulty is due in some cases to direct violence, as in a fall or from a blow; in others from injury received from the passage of the head of the child through the pelvis in labor, bending the coccyx backwards, causing dislocation (or fracture in case of the anchylosed condition of the coccygeal bones) or lacerating the ligaments which hold the bones together or unite the coccyx to the sacrum; or the *glandula coccygea* may be

injured in labor, and cause severe pain at this point, and even an abscess may follow this inflammatory action. This disease may also result from sympathy with disease in other parts or be the result of reflex nerve action. Notably among these may be mentioned almost all uterine and ovarian diseases and displacements. Dr. Barnes has also seen it caused from fissure of the anus. The pain is sometimes in part due to the condition of the general system, where there is abnormal sensitiveness of the entire nervous system, aggravated in this particular locality by slightly exciting causes.

Diagnosis.

The patient complains of pain in the extremity of the spine. It gives her pain to sit; she has to sit sideways. Has to change her position often. The pain runs down the limbs and sometimes up the back. Defecation is painful, especially if there is constipation. Copulation is sometimes painful. When there is a partial dislocation of the coccyx or a fracture of its parts, in cases where the bones have become anchylosed, pressure upon the bone with the finger in the vagina or rectum, also causes increased pain. The pain in some of these cases in the region of the coccyx is truly pitiable, and ordinary treatment for neuralgia is of little or no avail, and the patient comes under our care after having become almost discouraged at the failure of relief she has hoped to obtain so often, and as often been disappointed. The natural results of great pain long endured, are usually present. The appetite, digestion, nutrition, etc., are impaired. The nervous system is shattered, and altogether the case is one calling for sympathy and prompt relief.

Treatment.

The first thing to do in the treatment of a case of coccygodynia is to ascertain its cause. If there is present displacement or disease of the *uterus*, or *ovaries*, or *fissure* of the *anus*,

these conditions should be treated at once, hoping that the coccygodynia is dependent upon reflex nerve action, and that by relieving the ailments upon which it seems to depend we may at the same time relieve the coccygodynia itself. While treating the displacement of the uterus, or ovaries, or diseases of these organs, or the vagina or rectum, remedies should be used according to the totality of the symptoms which homœopathically indicate them. Among the following remedies will usually be found the one indicated: *Aconite*, *China*, *Ars.*, *Merc.*, *Ignatia*, *Nux*, *Colocynthis*, *Colchm.*, *Rhus tox.*, *Lyc.*, *Bry.*, *Thuja*, *Sulph.*

Failing in relief from the means suggested, we may make a subcutaneous incision over the point of the coccyx and insert a tenotomy knife by the side of the bone, and divide the tendonous and muscular attachments all around it; or we may make a larger incision and extirpate the entire coccyx, or the part broken off, in case it be fractured. Where the bone stands in against the rectum, at almost a right angle to the sacrum, extirpation is the advisable operation. Dr. J. C. Knott prefers extirpation to the subcutaneous division of its attachments in all cases requiring any operation. Simpson also recommends extirpation when the division of the muscular and tendonous attachments fails of giving relief. When the division of the tissues is thorough, the small nerve twigs which supply *Luska's gland* (the *glandula coccygea*), are severed, and this may explain the relief afforded in some instances by the operation.

The operation (whichever is performed) is comparatively simple, and free from danger; still the student should recollect that it is a last resort.

I have recently treated a case sent me from Indiana which had suffered severely from coccygodynia for over a year. I found at once that the patient had prolapsus uteri, the os resting against the rectum, with the fundus partially ante-verted. I replaced the uterus, and in two days

the coccygodynia had disappeared. Her physicians had overlooked the cause of the pain, and had thought it to be in the rectum or coccyx. My error would have been mortifying had I proceeded to divide the attachments of the bone or extirpate it. Sitting in this case was extremely painful, and defecation she described as almost death. She declared that her genital organs were all right, and she believed her trouble to be piles. By paying no attention to her opinion, and at once making a thorough physical examination, I was able to make a more correct diagnosis and relieve her at once; and I was informed several months afterwards that the relief was permanent. The treatment is often made easy by first making a correct diagnosis.

CHAPTER XXXIII.

CANCER AND CAULIFLOWER EXCRESCENCE OF THE UTERUS—CARCINOMA—SARCOMA, ETC.

We have two varieties of cancer of the uterus, the scirrhous and the encephaloid, the former being much the more frequent. The cauliflower excrescence, called carcinoma by some authors, is a fungus caused often from syphilis, and exerts some influence upon the general health by reason of the sanguinolent discharge accompanying it. The fact of its removal proving curative seems to disprove its cancerous character. The disease was first accurately described by Dr. John Clark, of London. It is rarely met with in America. It springs from the mouth and cervix of the uterus. The structure of cauliflower excrescence is fungoid, rough, granulated, and bleeds easily, being very vascular. It is of a pale flesh color.

Scirrhus of the uterus is most common in women who have borne children, according to statistics by Glatter.* Out of one thousand Vienna women affected with cancer of the uterus, there were

Single	229
Widows	268
Married	503
	1,000

Prostitutes show no special tendency to carcinoma, as might be expected from the nature of their habits.

The cervix is usually the seat of cancerous disease in the uterus. It sometimes extends to the body of the organ, and very rarely commences in the body of the uterus.

*Ziemssen's Cyclopædia, Vol. X, page 275.

It commences with induration of the lips of the cervix, which feel tender, hard, and irregular, and bleed easily. The lips of the mouth of the womb are everted usually. After a time ulceration sets in and causes an offensive sanious, watery, irritating discharge from the vagina, which excoriates all the parts with which it comes in contact.

The *encephaloid variety* of the disease generally occurs in the form of soft, lobulated masses which contain clots of fibrin. They vary in size from an orange to a child's head.

Symptoms.

The symptoms of carcinoma are those of other tumors of the uterus, with the excessive and almost constant hemorrhage which we have in non-malignant growths of the uterus, but the nauseous, sickening odor of the cancerous tumor when it reaches the stage of ulceration is distinctive, as is also the cancerous cachexia.

In the commencement of the growth of a cancerous tumor it may be impossible to diagnose it from fibroma of the neck, especially when it only affects one lip; but soon its greater readiness to bleed and the bad smelling discharge will indicate its character. In carcinoma of the body of the uterus, affecting the mucous surface, we have the bad smelling discharge *per vaginam*, accompanied with almost continuous hemorrhage, the introduction of the sound producing great increase of the flow of blood. The os may for a time in these cases remain quite normal in size and appearance.

It is usual that the patient dies within twelve or fifteen months after ulceration is developed; and before death the disease sometimes extends to the neighboring organs, producing utero-vesical, or utero-rectal fistula, but more frequently exhausts the patient before the disease extends so far. The distinctive pains of cancer are sharp and lancinating. They occur mostly at night, and very seldom by day. Why this is so we can offer no explanation.

Treatment.

In cauliflower excrescence we may hope for permanent relief from amputating the fungus, in connection with a part of the cervix uteri, unless there are great complications in the case.

The treatment of carcinoma of the body of the uterus must be mostly palliative, unless we extirpate the uterus. No remedy is known that will cure the disease. I have more faith in the beneficial effect of *Phytolacca decandra* in this disease (from my own experience) than any other. I have seen it arrest the disease for a year or more; and in *cancer* of the *breast* it has proved so beneficial as to be worthy of great confidence, as I know of cases where the nodulated tumor of the breast of large size has diminished and remained without further development for several years after the use of this remedy. The drug acts to purify the blood. *Conium* is perhaps the best remedy we know of to relieve the pains of cancer, except it be in those cases of extreme, hopeless ulceration which require full allopathic doses of *Opium* or *Morphia*. In this case I would use the opiate for humanity's sake, as I would in case of a hopelessly mangled body from external injury, not to cure, but to benumb the sensibilities. *Palliative* remedies are, of course, to be used as the various symptoms demand in each individual case, with nourishing, easily digested food, and attention to all hygienic measures possible.

Operative Procedure.—No operation short of entire extirpation of the uterus is of any avail, and this has not often been attempted; and without the patient's urgent solicitation it should not be undertaken. I will speak further upon this subject while treating of extirpation of the uterus.

Sarcoma.

Sarcoma may effect the parenchyma of the uterus, or exist as a degeneration of a fibrous polypus. To be brief,

they resemble uterine fibroma in their symptoms, and are not generally discovered to be sarcomatous growths till removed, or the post mortem reveals their nature. They are round, soft tumors, homogeneous in structure, and when cut reflect the light uniformly. They are probably always degenerated fibroids. The pedunculated sarcomatous polypus may be expelled from the uterus spontaneously. By some it is classified as cancerous, but as it does not seem to depend upon a depraved condition of the blood, and when thoroughly removed does not return, I do not call it malignant. Of course, when situated so as to render its removal impossible, it may destroy life by reason of ulcerative action, but many times this ulcerative action is so long delayed that the patient has time to die of some other disease.

Tuberculosis of the Uterus.

Tubercular deposits in the uterus take place as they do in almost all other parts of the body. They seldom attack this organ primarily; and secondarily only very rarely. The symptoms are those of ordinary chronic sub-acute metritis, conjoined with the regular tuberculous cachexia.

Diagnosis.

The differential diagnosis, in some cases, is very difficult; in others, the general tuberculous diathesis, with the history of a character such as to suggest a possible hereditary taint, will distinguish it from the ordinary sub-acute, chronic metritis. There is generally a tendency to *amenorrhœa;* but, in some instances, *menorrhagia* is present, together with the long train of sympathetic affections accompanying uterine disease.

Treatment.

Those remedies are the most useful which aid activity of the glandular system, such as *Merc. cor.*, *Protoiodide* of *Merc.*, *Ars.*, *China*, *Phy. dec.*, etc. Good nourishment, especially milk, eggs, and sugar, should be given.

CHAPTER XXXIV.

FEMORAL HERNIA, INGUINAL HERNIA, LABIAL HERNIA, VAGINAL HERNIA, AND HYDROCELE.

Labial hernia is of very rare occurrence. *Femoral hernia* is quite frequent; but is not peculiar to women, though it occurs in the female oftener than the male; we will, therefore, refer the reader to works on surgery in regard to femoral hernia.

Inguinal hernia in the female has some peculiarities. Although the tumor is usually small, it has been known to contain twelve feet of small, and two feet of large intestine. When the intestine projects from the inguinal canal into the labium, it is termed *inguino-labial hernia.* This form of hernia may contain not only intestine and omentum, but the ovary and Fallopian tube. The coverings of this hernia consist of the skin, superficial fascia, intercolumnar aponeurosis, transverse fascia, and peritonæum. The epigastric artery is usually on the inner side of the tumor. *Labial hernia* is usually of small size, situated in the inferior half of the labia majora, and usually contains a portion of the bladder, though it has been known to contain intestine.

In *Vaginal Hernia* the anterior form contains the bladder, and is termed also *cystocele.* The posterior form contains intestines. Either variety may contain an ovary and the Fallopian tube.

Hydrocele in Women.

This affection consists of a collection of serous fluid around the round ligament. The affection may simulate hernia of the inguinal variety. Dr. E. P. Bennett* reports

*New York Med. Record, Nov. 15, 1870.

a case of this disease in the female. It had been mistaken for an inguinal hernia by an eminent surgeon. The tumor was about the size of a turkey's egg. The round ligaments in the female are analogous to the spermatic cords in the male. They end in the labia majora. The peritonæal covering usually extends to the inguinal glands; hence, we may understand how an irritation around the cord may cause effusion in this locality.

Treatment of Hernia in Women.

Vaginal hernia is to be treated by restoring the displaced parts or organs by taxis, and retaining them *in situ* with the gum elastic bag in the vagina and the use of the abdominal supporter. (See Plate No. XII.)

In *strangulated labial hernia* where taxis fails, we cut down upon the sac, divide the stricture, and return the hernia into the abdomen.

Inguinal hernia in the female is to be treated as in the male, by taxis and the wearing of a suitable truss. If necessary to operate, recollect that we have no cremaster muscle to cut through, as in the male.

Treatment of Hydrocele.

When the diagnosis is clearly made the treatment of hydrocele consists in aspirating the sac, and then injecting into it a ten-grain *Solution of Iodine.* A small amount only of the injection need be used, when it also should be aspirated. We now apply a compress over the seat of the tumor, and wait for adhesion of the walls of the sac. If it again refills we should again aspirate it, and inject a twenty-grain *Solution of Iodine,* and, after aspirating it, apply compression as before.

CHAPTER XXXV.

HYDROMETRA—PRURITUS VULVÆ—ABSCESS OF THE LABIA—CYSTS OF THE VAGINA—FIBROIDS OF THE VAGINA—POLYPI OF THE VAGINA—PROLAPSE OF THE OVARIES.

Hydrometra.

Hydrometra is worthy of but a word of description and comment. It is a term applied to an accumulation of serum in the uterus, in cases where there is atresia of the vagina or cervix uteri similar to the condition producing hæmatometra, the effused fluid being serum instead of blood. This condition could not result unless there was an absence of normal menstrual flow. It is rarely met with, and is to be treated the same as hæmatometra.

Pruritus.

This term is applied to the itching of the female genital organs. The disease is divided into several varieties by some authors. 1st, indicating the part affected as pruritus of the vagina, pruritus vulvæ, etc.; by others it is divided according to its imagined causation, as menstrual pruritus, when recurring at the menstrual period; climacteric, when occurring at the change of life; pruritus of pregnancy, when coming on while the patient is pregnant, etc.

The disease occasions extreme pain in the attempt to suppress the desire to scratch and rub the parts, and when the parts are violently scratched or rubbed, the skin and mucous membranes are lacerated, or become swollen and inflamed. In some instances the internal surface of the vagina is the seat of these severe sensations; in other cases the labia, mons veneris, or clitoris, is affected. Sometimes the

itching extends to the thighs upon the inside. The itching comes on most frequently at night, and is so severe as to prevent sleep. During the day the patient is somewhat troubled, and the desire to scratch the parts is so great that it almost drives the patient to distraction in some instances.

Etiology.

The causes of *Pruritus* are various. It has usually been supposed that the itching of the parts was due to irritating vaginal or uterine discharges and inflammation in the parts. This is true in very many instances, but we believe that it sometimes has its cause in reflex nerve irritation, and sometimes from congestion of the parts, caused from lack of sexual congress, and sometimes from excessive copulation, sometimes from onanism, sometimes irritation of the clothing, and sometimes from diabetes.

A large leucorrhœal discharge does not, as a rule, produce pruritus. Neither do acrid uterine or vaginal discharges invariably cause the disease. Still in some instances these discharges seem to be the cause of the itching. The supersensitive condition of the nerves of the entire system seems to predispose to the complaint; hence we find that the trouble is more common in women who are exhausted either by long suffering from uterine or spinal disease, or from nursing, in those cases where the difficulty apparently was directly caused from irritating vaginal discharges. The reflex nerve irritation is shown in cases of amenorrhœa when the suppression arises from cold, in cases of *metritis*, *ovaritis*, and uterine displacements; also occurring at the climacteric period and during gestation, although in some of this class of cases there is a more or less copious vaginal discharge; sometimes, however, there is none observable, and there is rather dryness of the parts than moisture.

Ungratified sexual passion, brought into activity by fondlings and caresses of the lover, in girls of full blood and

strong animal nature, by exciting, first, erection of the clitoris, and, secondarily, congestion of the adjacent parts, develops a violent pruritus, which it is difficult to relieve unless remedies are given to allay the passionate excitement, or the patient marries. Pruritus resulting from excessive coitus is due to continuous congestion, irritation, and bruising of the parts.

Onanism, of course, develops a similar, though worse, condition, because of the mental and consequent nervous disturbance produced.

The pediculus pubis or crab, which sometimes infests the hair upon the pubes, gives rise to similar symptoms as ordinary pruritus. Not recollecting this, has caused many a physician to lose a patient, because of the failure of his prescriptions. The second physician consulted, having prescribed something to kill the parasites at once, secured the patient for the future, as well as earning her lasting gratitude.

Short stiff hairs upon the labia, situated on its margin, may cause the itching. Occasionally girls, for some reason, shave off the hair about the privates. As it grows again it comes out stiff, and is liable to prick the opposite labium.

Diagnosis.

In the diagnosis of pruritus the important thing is to determine the cause—the simple description of the complaint by the patient is sufficient to enable us to name the difficulty as pruritus. Still, to treat it successfully a physical examination is sometimes absolutely necessary. The pediculi should be carefully looked for. If present they appear a little smaller than a pin's head, grayish brown in color. They have the appearance of specks of dirt, and adhere very tenaciously to the cutaneous surface. When forcibly removed they show signs of vigorous life by active movements. They are circular, and cup-shaped, the outer part being about flesh color. Sharp hairs can be readily detected

by the sense of feeling alone. When these conditions are not found the aid of the speculum and sound may be needed to make the diagnosis of the cause of the trouble. Testing the urine for sugar should not be forgotten in these cases.

Treatment.

We are justified in some cases in attempting to treat pruritus from the descriptions given by the patient, or a friend, in order to not shock the modesty of the patient, as it is one of the most embarrassing ailments for the patient to describe to the physician, unless he has treated her previously for uterine ailments.

First, those things which seem to be aggravating the disease should be forbidden, especially scratching or rubbing the parts. Smearing the parts well with *Vaseline* or *Olive oil* for a few days, with the daily use of warm water vaginal injections, and placing a thin bit of raw cotton between the labia, or even pressed up into the vagina, and giving *Aconite* every hour, is commonly a good method to commence on when we can not obtain a physical examination, and have to prescribe for symptoms; the *Aconite* being indicated for the feverish, nervous symptoms usually present.

Treatment of Pediculi.

When pediculi are found we prescribe *Mercurial ointment*, diluted one-half with simple *Vaseline*. This may be perfumed as suits the doctor's whim. Let it be applied with the ends of the fingers, in small amount, each night for three days, washing thoroughly each following morning with castile soap and water. Now omit the *ointment* for about a week; if then it is found that any of the parasites remain give them another dose of the *ointment*, applied as before. Sometimes an infusion of *Tobacco*, thoroughly applied to the parts a few times, effects a cure by killing the parasites. It should be washed off the same as directed after using *Merc. ointment.*

Those cases dependent upon metritis, ovaritis, uterine or ovarian disease, or displacement, should be treated by palliatives till we can remove the cause. First, the parts should be frequently bathed with soap and water, and the vagina syringed with the same. Follow this with *Carbol. ac.* one part to twenty of water, applying it to the part affected; or, in some cases, use *Aconite* 1^{x} as a wash to the parts, keeping the labia separated with raw cotton.

Remedies.

Remedies must be selected according to the totality of the symptoms in each case. Among the following we usually find the one indicated: *Aconite*, *Nux*, *Sepia*, *Sulph.*, *Cal. carb.*, *Conium*, *Arnica*, *Ars.*, *Urtica urens*, *Bryonia*, *Apis*, *Puls.*, *Macrotis*, etc.

When the parts are exceedingly swollen and tender, warm, wet, soft cloths are soothing, and a poultice of ground flaxseed or slippery elm is sometimes a great relief. Using a wash of *Kali chlo.* ten grs. to the oz. of water is one of the most serviceable applications. Strong caustic applications do more harm than good. Let them alone.

In case the cause seems to be ungratified sexual passion or onanism, *Kali bro.*, or *Camph.*, in low attenuation, are the remedies. Direct a cold sitz bath to be taken daily. Bland, unstimulating diet should be given, and plenty of exercise in good air should be taken.

The bowels should be kept regulated with indicated homœopathic remedies, and the use of the syringe if necessary. The digestive, nutritive, and assimilative functions should be noted and kept in as healthy action as possible.

Abscess of the Labia.

Phlegmon in the Labia, etc.

Phlegmon, or boil in the labia, is somewhat different from the disease when located in other parts of the body. In the

labia majora these gatherings form of small size usually, and occur in succession one after another for several weeks or even months.

They are found most frequently in anæmic, debilitated women, who are troubled with uterine disease and leucorrhœal discharges. At first a small pimple is observed on one of the labia majora, usually upon the inner side. This enlarges and inflames till suppuration takes place, which usually requires five or six days to accomplish, when the matter escapes by ulcerating through the mucous covering. By this time others have commenced forming.

Abscess of the labia sometimes forms from distension of Duverney's gland, from obstruction in its duct. It is usually observed as a hard lump in the posterior part of the labia in the region of this gland, for several weeks, and is not tender to the touch for a time; finally, however, inflammation sets in and suppuration follows, unless the nature of the difficulty is discovered and proper treatment used before it becomes inflamed.

The more common form of abscess of the labia occurs in its center; usually only upon one side, though occasionally in both labia at once. In this form of abscess the first thing which is observed is swelling and tenderness of the labia. On examination the part feels hot and looks inflamed, especially on its mucous surface. The patient is scarcely able to walk, and can sit with great difficulty. Usually the general symptoms indicate fever; there is a flushed face, rapid pulse, and dry skin. These cases often go on for several days before the physician is notified, and if called he is only informed of the feverish symptoms, and, perhaps, told that there is a pain in the stomach. (The patient imagining that it is proper to say stomach when indicating any point between the thighs and breast.) It has been my experience to see these cases arise in young married women within a few weeks after marriage, or where the husband and wife have been

reunited after a long separation, and occasionally in a prostitute who had recently commenced a life of shame.

The locality of the trouble, the timidity of the patient together make the disease particularly embarrassing. Still in some cases it is excruciatingly painful, and something must be done.

The cause of this form of abscess is, doubtless, the bruising of the parts by violent copulation in most cases, although of course it may arise from bruising in any manner. I have seen it arise from bruising the part against the post of the foot of a low bedstead.

This form of abscess of the labia, as a rule, runs a rapid course, and within three days from the commencement of the attack suppuration takes place. The patient complains of a chill, and all the symptoms are more marked, especially the fever following the chill.

Care must be exercised not to mistake a case of inguino-labial hernia for abscess of the labia. Here we might have the fluctuating feel; but the possibility of partially or completely reducing the hernia, would indicate the nature of the case. In the inguino-labial hernia, there is swelling and pain; but not the heat and redness and disposition to point, which there is in labial abscess. In hernia we also frequently have vomiting of fecal matter, which we do not see in labial abscess.

Treatment.

In the treatment of the abscess in the centre of the labia from bruising, we usually are not called till pus is formed in considerable quantity, and the first thing to do is to evacuate it by free incision through the mucous surface of the labia. The incision has to be deep in some instances to reach the pus. When it is reached and evacuated, the patient experiences very great relief at once.

Fomentation with hops or poultices of ground slippery-elm or flaxseed are to be applied, and such remedies given

as seem required. *Arnica* is usually indicated. If we are called before pus has formed, we should apply warm, wet cloths, saturated with *Arnica* and water; and *Arnica*, *Aconite*, *Bell.*, or *Hamamelis* should be given internally, as seem most clearly indicated. A warm sitz bath should be used every four hours. This plan sometimes aborts the abscess.

In cases coming on slowly and situated in the posterior part of the labia, indicating obstruction in Duverney's gland, from closure of its duct, an effort should be made to open the duct with a small probe, if possible, in case there is not present very much inflammatory action in the tumor. After we get the duct pervious, we should attempt to press out the accumulation in the gland; succeeding in this, we may be content to simply apply *Arnica* and water, and give any indicated remedy. If we can not introduce the probe or evacuate the gland, we should apply a warm poultice of flaxseed meal or slippery elm, and make another attempt after a day or so. Again failing, the poultice should be continued, till either the inflammation goes away by resolution, or suppuration is accomplished, and the pus is evacuated, either by ulcerative action, or artificially by the aid of the bistoury.

Usually in these cases there is a torpid glandular action in the entire system, indicating some of the following remedies: *Podoph.*, *Merc.*, *Iod.*, *Ars.*, *Hepar*, *Kali*, *Sulph.*, *Merc. idro.*, *Nux.*, or *Cal. carb.* These should be used singly, according to their most prominent homœopathic indications. In phlegmon or boil, the general system must be put in order, and usually *Sulph.*, *Kali.*, *idro.*, *Nux*, *Puls.*, *Ferrum*, *Merc.*, *China*, etc., are the indicated remedies. Locally a cloth smeared with *Vaseline* is the most desirable dressing, or raw cotton may be substituted for the cloth. Vaginal injections of carbolized water should be used twice daily. The condition of the stomach and bowels should be especially noticed, and such remedies prescribed as the symptoms may homœopathically indicate in each particular case.

Cysts of the Vagina.

Description and Pathological Anatomy.

Vaginal cysts occur singly in most instances, though occasionally they are multiple. The walls of the cysts are sometimes tough and thick, sometimes thin. The tumor produced by the cyst is situated either in the anterior or posterior part of the vagina. Sometimes the vaginal cyst in the anterior part of the vagina resembles a cystocele sometimes it pouches down, so as to appear like a polypus, owing to the relaxed condition of the anterior vaginal wall. They usually are enlarged follicular glands of the organ. Viet supposed them to depend upon a dilatation of the canals of Gartner, and probably this theory may be in some cases correct. The cyst contains a liquid varying in color and properties to a considerable extent. Sometimes it is thin, serous, and white; at other times it is found thick, white, and albuminous; again, bloody, reddish, or yellowish brown. In pregnant women small cysts of the vagina sometimes occur which are filled with gas in part.

Etiology.

But little is known of the etiology of vaginal cysts. Bruising of the vagina and extravasations of blood have been thought to be the cause. If this was so the contents of the cyst would more frequently be found to be blood or pus. Obstructed follicles from inflammation is all right in theory, and may be correct in the majority of cases; but if asked, Why should they so generally occur singly? we would be at a loss for an answer. I am of the opinion that slight serous effusion from circumscribed cellulitis, is a more plausible theory of their causation than any I have before suggested.

Symptoms.

Small cysts in the vagina present no symptoms. Large ones offer obstruction to copulation, and when pendulous interfere with walking. I removed one of this kind last year; it protruded as large as a small orange from the vulva. It had been treated as a cystocele by a reputable physician of this city, unsuccessfully.

Diagnosis.

The main trouble in diagnosis is to distinguish a cyst of the anterior wall of the vagina from a cystocele. This is best accomplished by introducing a flexible catheter into the bladder, and drawing off all the urine, while we press the tumor well up into the vagina. If it be a cystocele the size of the tumor will then be found materially diminished; if a cyst of the vagina, not altered in size. The vaginal cyst in the posterior wall of the vagina is easily diagnosed from rectocele, with which it is possibly confounded, by combined rectal and vaginal touch.

Treatment.

The treatment of vaginal cysts, when of a size sufficient to incommode the patient, consists in drawing off the contents of the cysts by means of an ordinary trocar; if the cyst refills (which it is very likely to do) it must be again drawn off, and the sac injected with *dilute Comp. Tr. Iodine.* I dilute the *Compound Tr.* about one-half, and allow it to remain in the sac about ten minutes, and then flow away through the canula of the trocar.

After this is accomplished the sac should be compressed so that its sides may adhere and its cavity be obliterated. In order to accomplish this object the inflatable rubber bag may be inserted into the vagina, and well inflated. In this situation it should be allowed to remain several days, though

it may be removed, cleansed, and re-introduced every two days or such a matter. Should we find, after inserting the trocar, that the contents of the sac were too thick to readily pass through the canula, we may insert a small sized bougie, or a probe, and break down the semi-liquid contents of the cyst, after which we may use compression to force the contents of the sac through the canula.

If by using these means we are unsuccessful in evacuating the cyst, we may withdraw the canula, and with a sharp-pointed bistoury enlarge freely the puncture already made. We now scoop out the cystic contents with the finger or a spoon-shaped probe, and mop the interior of the cyst with *Tr. Iodine Comp.* It is important, I have found (and reason as well teaches), that the *Comp. Tr.*, instead of the *Tr. of Iodine*, should always be used in the treatment of all cases where it is desirable to awaken adhesive inflammation in cysts of any variety. The *Tr.*, if diluted with water or serum, precipitates the *Iodine*, and produces rather more inflammation in spots than is desirable, and much less than we wish in the balance of the sac. The *Comp. Tr. Iodine* is capable of any amount of dilution with water or serum without precipitating the *Iodine*, so that from its use we obtain an even effect upon the entire surface which it touches, even if it gets somewhat diluted.

The effect of the deposit of free *Iodine* in crystal upon the interior of any sac or cyst might develop dangerous inflammatory action, and still fail of affecting any ways favorably the remainder of the cystic wall. What is wanted is to excite an irritation in the lining of the sac which will be just sufficient, and no more, than to cause adhesive inflammation; and the effect should be uniform, and not burn a piece of membrane in one place and produce no effect upon the greater part of the cyst, as often results when the pure *Tr.* is used.

The same remarks apply with almost equal force when

we desire to use *Iodine* with a swab or brush; hence we unqualifiedly prefer the compound *Tr. of Iodine* when we use *Tr.* at all, and in most cases a solution made with water instead of alcohol is preferable, using 3 grs. of *Kali hydriodicum* to each gr. of *Iodine*. Maintaining this proportion, we may make a saturated solution, or make one as dilute as imagination itself.

Fibroids of the Vagina.

Schroeder* speaks of fibroids of the vagina. I can find no other author who has claimed to have seen one. The tumor which he saw was of the size of a walnut, and was situated in the right side of the vaginal cul de sac. It occurred in connection with a uterine polypus the size of a child's head. He describes the tumor as soft. His description is not definite enough to make out a positive diagnosis that it was a fibroid.

Polypi of the Vagina.

Polypi of the vagina are of exceedingly rare occurrence, although papillary growths in the vagina frequently occur (usually as a syphilitic symptom, however). One case is quoted by Dr. Barnes, of London,† reported by Mr. Curling, which was attached to the vagina just above the meatus of the urethra. It projected outside the vulva, and consisted of dense fibrous tissue.

Treatment.

They may be removed by torsion if small, or with the ecraseur or ligature and knife if of considerable size, the same as fibrous polypi of the uterus.

Prolapse of the Ovaries.

Some cases of prolapse of the ovaries are very difficult to cure. These displacements often cause severe abdominal

* Ziemssen's Cyclopædia, Vol. X, p. 508. † Barnes' Diseases of Women, p. 758.

pains. The prolapsed condition of the ovary does not always, however, produce severe symptoms, and the more experience I have the more I am convinced that the pain is more often due to inflammation than displacement of the organs. The displacement is caused by increased weight in the ovary itself in connection with relaxation of the broad ligament upon the affected side, in cases where it is displaced independently of the uterus. This displacement has in former years received but little attention, but is worthy of notice, in that it explains the difficulties encountered in the cure of some obstinate cases, where the disease is obscure, from a casual examination.

The diagnosis is to be made by means of the conjoined method, with a finger of one hand in the rectum and two fingers of the other hand in the vagina, when the prolapsed and tender ovary is felt at the side of the posterior part of the vaginal *cul-de-sac*. These displacements become doubly painful during copulation, owing to the increased congestion of the parts produced by the excitement of the act.

The ovary is sometimes so extremely displaced as to be denominated ovariocele, and in other instances hernia of the ovary; but these conditions are treated of separately under these heads, and are not considered under the head of simple prolapse of the organs.

The ovary is displaced downwards in connection with prolapsus of the uterus, and sometimes remains somewhat prolapsed after the uterus is reinstated, and causes pain in the pelvis and abdomen. Differentially it is very hard sometimes to distinguish cases of this kind from a circumscribed cellulitis. In the circumscribed cellulitis in the region of the ovaries, the thickening of the tissues is broader in extent from side to side than from before backwards, while the ovary feels nearly round, though oblong in shape.

Treatment.

The treatment of prolapse of the ovary is not always easy or satisfactory, on account of not using a sufficient amount of reason in the application of means for its relief, or on account of adhesions which have formed, and which bind it down to its abnormal position.

The abdominal viscera should be lifted off the pelvic organs as a first principle, either by causing the patient to maintain the horizontal position with the hips elevated, or by means of an abdominal supporter properly adjusted. The next step is to elevate the uterus above its normal position, so that the ovary may also be elevated. This is well accomplished in many cases by means of the elastic inflatable rubber bag. This should be used of large size, so as to quite completely fill the pelvis. Place the patient in the knee-elbow position before pressing up the uterus or inserting the rubber pessary, so that there may be no pressure from the weight of intestines to interfere with the rise of the uterine organs. This crowds the uterus and ovaries up to a normal position, better than any other means with which I am acquainted. The support should be maintained for several weeks, removing, cleansing, and readjusting the pessary as often as is necessary for cleanliness. This also compresses the cellular tissue, so that it may become more firm, and gives the broad ligaments an opportunity to gain strength, so that when we remove the support, and the uterus settles to its normal position, the ovary may remain where it is and should be.

In these cases we may have some inflammation of the ovary to contend with — not, however, resulting from the treatment, but from the displacement. To relieve this the *Bromide of Potassium* should be given sufficiently to benumb the passions. The sexual instinct should be, for the time, kept in entire subjection and as dormant as possible.

Rest and quiet, both to body and mind, should be enjoined. Neuralgic dysmenorrhœa is likely to complicate these cases, and give an indication for *Macrotine*, *Puls.*, *Cimicif.*, *Acon.*, *Ars.*, *China*, *or Bell.*

Should cellulitis complicate the case we are obliged to trust to position and remedies, and we can not use the inflatable bag in the vagina, as the pressure from it could not be tolerated, until the cellulitis had been relieved.

CHAPTER XXXVI.

ABORTION.

This term is applied to the expulsion of the fœtus at any period of gestation previous to the seventh month.

Abortion is a fruitful cause of disease in women, and should be understood, that its earliest manifestations may be subdued, that the accident may, if possible, be averted. It should be understood, that it may be conducted with safety to the mother, in case it can not be prevented. It should be understood, that we use no treatment or remedies upon a patient who is pregnant calculated to cause her to abort; and, finally, that we may treat properly the conditions caused by the abortion, in case one has occurred.

We must consider abortion a disease, and the desire among women to produce it is an evidence of a diseased state of society, which of course is made up of individuals. Hence the minds of these individuals must be diseased, or at least perverted in judgment. Objection to maternity seems to largely pervade the minds of American women. This shows that a healthy sentiment has not pervaded society for years past, and that unless a change occurs in this regard, the very foundations of government are endangered. It therefore becomes the physician's duty as a philanthropist and patriot, as well as a physician, to use all his influence to cause women to look upon maternity as a blessing, and that in the proper training of children women have an opportunity to shape the destinies of *nations*. Their power in this way is equaled by none on earth. Can they not see that in this direction there is an opportunity for influence greater than they can exert in any sphere as ladies of fashion in

gay society? Here are in store for them honors as far excelling those received by the gay butterflies of fashion, as the noonday's sun excels in splendor the flicker of a fire-fly.

The extent to which criminal abortion is carried on in this country (and I may add among some of the nations of Europe,) is astonishingly large, and its magnitude will only be fully realized at the judgment day.

This practice has destroyed the health of many a robust woman, and made her a poor wreck of humanity unfit to propagate or rear offspring.

We can not feel it just to omit to say, in this connection, that the men of our time are by no means clear of blame in this regard. They have failed to show their wives that they appreciate the trials and pains incident to motherhood; have failed to show their appreciation of children, of home, of the home circle, by absenting themselves too much from the companionship of wife and children, and have found too much pleasure in the club, the lodge, or the saloon. Nor is this all. Too often have they fallen into temptations while from home which have resulted in contaminating their blood with syphilitic virus, which has caused the wife to feel she is doing humanity a service to refuse to be a party to the passing down to posterity any of the contaminated blood in her husband's veins.

There are, however, accidental abortions dependent upon various causes, the

Etiology

of which we will now consider. They may arise from any cause which produces a separation of the attachment of the ovum to the interior uterine surface. This is most readily accomplished when the attachment is feeble, as I believe it is when a small number of spermatozoa penetrate the ovum (as I have mentioned in connection with the discussion of moles). There may reasonably be supposed to be, in some instances, a deficiency in strength or vitality in the

spermatozoa, as well as a deficiency in their number. The inflamed irritable condition of the endometrium, muscular tissue, or nerves of the uterus may predispose to cause contractions of the organ, and produce death of the ovum at any stage of development after impregnation. Hard work, lifting, straining, jumping, etc., excessive sexual intercourse, cold, vaginal injections, drastic cathartics, or violent emotions of the mind may cause death to the fœtus in utero, and consequent abortion. The nursing of a child at the time gestation is going on may, by means of the exhaustion induced, as well as from the stimulating effect upon the uterus, from the irritation of the breasts through the sympathetic nerves, cause abortion.

Symptoms.

Uterine hemorrhage or pain, coming on in the pregnant woman, are symptoms of threatened abortion, as a rule. (In very exceptional instances women menstruate moderately while pregnant.) We must not consider a slight show, occurring at regular monthly periods, as evidence of a threatened abortion in all cases. This is not to be considered a hemorrhage, but menstruation. But where the flow comes on irregularly, and is sometimes quite profuse, accompanied with occasional uterine pains, we can be sure an abortion is threatened, if the woman is pregnant.

A considerable chill is often a symptom indicating the death of the fœtus, although the chill is not accompanied with uterine hemorrhage or pain. In this case faintness, and in some instances convulsions, come on, and still more clearly indicate the nature of the impending crisis. By making a physical examination we find the os uteri somewhat dilated, varying in size according to the stage of gestation and the time which the other symptoms of abortion have been going on.

As abortion progresses the os uteri becomes more dilated, and the pains become more regular and severe. Hemorrhage is not usually profuse when there are severe uterine contrac-

tions. In some cases an immense amount of blood is lost *per vaginam*, faintness comes on, there is coldness of the extremities, and the blanched countenance, and still no pains in the uterus. These symptoms not only indicate that abortion is impending, but that death itself is hovering near to claim its victim.

A gush of water from the vagina indicates the rupture of the membranes and the escape of the amniotic fluid, and shows that abortion is unavoidable, as is also evidenced by the preceding train of symptoms. Usually, after the rupture of the membranes, uterine contractions come on with increased frequency and severity, and the hemorrhage is much decreased, or entirely stopped. The danger to the mother is now much less, but the saving of the fœtus is out of the question. There occasionally occurs a case which might be at first considered as exceptional to this rule. I refer to cases where the rupture of a single cystic polypus of the uterus simulates the rupture of the membranes. I have, however, never seen a case of this kind occur previous to the seventh month of gestation. After the seventh month I have seen several where there were severe uterine contractions, and the rupture of a single cyst, either connected with the uterus or ovum, which seemed to threaten premature delivery, but was averted by proper remedies and means; and the women went on to full term, and were delivered of healthy children. I do not remember that either case was complicated with uterine hemorrhage. These cases were threatened premature delivery, and not threatened abortion, as they occurred subsequent to the seventh month.

Puerperal convulsions are not very common in cases of threatened abortion; still, they do sometimes occur. I recollect a case where the patient was thrown into violent puerperal convulsions after taking Oil of Tansy to produce an abortion upon herself. I have also seen them produced by the death of the fœtus from accidental causes.

Diagnosis.

The diagnosis of a miscarriage is ordinarily easy from the symptoms which I have given; but there are sometimes cases which are very perplexing. These women have, perhaps, been regular in their menstrual flow, though it has been scant in amount for one, two, or three months before. In these cases we have to rely upon the accompanying symptoms to enable us to decide whether our patient is really pregnant and is threatened with abortion, or whether it is a case of dysmenorrhœa with amenorrhœa. The size of the uterus aids us in some cases; in others, the uterus is abnormally large from congestion or sub-involution, and it is next to impossible to be positive in the diagnosis. In such a case we should give the patient the benefit of the doubt, stop the pains, and let time clear up the diagnosis.

Again, in women who have reached the climacteric period, and have missed their catamenial flow for a period of two or three months, and then are attacked with uterine hemorrhage and pains, the diagnosis is difficult. Usually these cases prove not to be pregnant, but I have seen a fœtus expelled from such a patient even at the age of fifty-three years. So we do well to be on our guard even with these old patients.

Uterine polypi may cause hemorrhage and uterine contractions, and have, of course, an enlarged uterus to contain them, and greatly simulate the case of threatened abortion. The history of these cases will usually throw light upon the diagnosis. Generally, in the history of a case of uterine polypi there has been no period of cessation of menstruation, the flow having been profuse instead of scanty. This is not, however, proof positive, as in some instances of uterine polypi the menstruation is for a time nearly or quite arrested. In such a case we must also give time a chance to clear up the diagnosis.

In the attempted expulsion of the uterine polypus, as well as the threatened abortion, the *os uteri* is found somewhat open. If dilated so as to admit the finger, and we can feel the fluctuation of the water within the membranes, of course we know, usually, that there is pregnancy and a threatened abortion in the case. The polypus might, however, be soft, and deceive us; but this would occur seldom, if ever, for the history of the case must always be taken in connection with the physical evidences we find.

Prognosis.

We can usually prognose, that if the patient is like other women she is likely to have trouble following, although years of breath in the body may be allowed her, for want of care of themselves is characteristic of women who produce this state of affairs or upon whom it is brought accidentally. The physician should warn his patient of the danger of carelessness after abortion, and induce her, if possible, to exercise the greatest degree of caution against taking cold or taking undue exercise. Death may result directly from loss of blood, or from convulsions, or from inflammation following the abortion. Sterility may result, and a long train of female diseases may be anticipated in very many cases, among the most prominent of which I may mention *sub-involution* of the uterus, chronic metritis or *cervicitis*, *displacements of the uterus*, *uterine tumors*, and the long array of *sympathetic* symptoms, whose name is legion. One abortion always predisposes to another, should pregnancy follow the first.

Treatment.

The first thing to consider in the treatment of a case of threatened abortion is, whether it is possible to prevent it. In order to decide this question, it is necessary to take into consideration the strength of the patient, the amount of hemorrhage and pain which she has suffered, and the length

of time which has elapsed since threatening symptoms have been manifested. Some considerable uterine pain, with a moderate amount of hemorrhage, may not make the loss of the conception positive, and active means must be used to arrest the pain and the flow, or at least we should be active in the use of means. The first thing is to insist upon perfect rest, in the horizontal position, and at once administer *Secale cor.* 6^{x} dilution at hourly or half hourly intervals. Cool, wet cloths should be applied over the epigastrium in cases of severe hemorrhage, but where there is uterine pain without severe hemorrhage the warm cloths are most desirable and useful. *Aconite*, *Bell.*, or *Ipecac* are indicated for the hemorrhage, with heat of skin or nausea. *Arnica* is useful if the pains are the result of lifting, straining, a fall, or any traumatic injury, including excessive venery.

After the pains have ceased and the hemorrhage is arrested, we must still enjoin perfect rest for several days; and no violent exercise should be taken during the entire course of gestation, for after one attack of pain or hemorrhage, from whatever cause, the patient is more liable thereafter to another attack. Cool drinks should be given and the air of the bed-chamber should be as pure and fresh as possible, with a careful regard to proper temperature, which should always be maintained at a rather low standard.

If the case presents alarming symptoms when it comes under our care, if convulsions are present, having been preceded by a chill or otherwise, if the uterine hemorrhage is profuse and has been so for several hours, if the uterine contractions have been frequent and severe for a long time, or if the membranes have ruptured, we can not hope to save the fœtus, and we must try to save the mother. To do this the sooner the uterus is emptied the better. But we can not always accomplish this at will. We may give *Secale cor.* in mother *Tr.* ½ 3, doses in warm water, every twenty minutes. We may irritate the interior of the cervix by sweeping the

finger around in it, by which means we also dilate it; still hemorrhage may go on, and no uterine contractions be induced to control it. It now may become necessary, in such a case, to tampon the vagina. This may be conveniently done with the elastic rubber bag, with tube and stop-cock. If the bag is not at hand, a silk handkerchief may be pressed up into the vagina, and distended with raw cotton or pieces of cloth. This will arrest the hemorrhage, if the tampon fills the vagina perfectly, causing a clot to form in the cervix, and this holds the blood in check, as the uterus will not dilate to any considerable extent in case the fœtus is still within the uterus. (After confinement at term or premature delivery, and even in cases after an abortion of a six months' gestation, this would be an unwise and unsafe mode of arresting hemorrhage.)

After a time, varying in different cases, uterine pains usually come on actively, especially if stimulants are given, or we wait a sufficient time for the forces of the system to recuperate. We now remove the tampon in the vagina and aid the expulsion of the fœtus and placenta as much as possible, pursuing the same rules of practice which should guide us in assisting a delivery at full term. (This does not include going to sleep and letting the patient take care of herself, as is the custom of some of those who have at their tongues' end and are always repeating the old adage, that "meddlesome midwifery is bad.")

After the delivery of the fœtus, the utmost skill and promptitude should characterize our efforts to secure the prompt and entire delivery of the secundines. A failure to attend to this properly is likely to be followed by severe hemorrhage, if not septicæmia. Herein lies largely the immediate danger from abortions. To obviate this we should see to it that uterine contractions are induced, and if they are not sufficient to detach the secundines, a well curved uterine sound should be introduced (in case we can not introduce a

finger up to the attachment), and by gently sweeping it around the interior of the uterine surface, we may detect the point of the placental attachment, when we should endeavor to separate it by gentle but steady pressure sidewise with the sound. After it is detached its expulsion is readily secured, either by uterine contractions, or by means of the fingers, or a slender pair of uterine placental forceps. Rest, bland nourishment, and quiet are now demanded, and we should give such homœopathic remedies as the symptoms indicate.

When called to a case where the placenta has been long retained the same principles govern. (I have removed one which had been retained for about eight weeks, the hemorrhage from which had nearly killed the lady.) In such cases, of course, *China*, *Ars.*, *Nux*, *Rhus.*, etc., are the indicated remedies, with nourishing diet, rest, and fresh, pure air. In case *metritis*, *peritonitis*, *leucorrhœa*, or any other diseased condition, remains as a sequence of abortion, these conditions demand treatment peculiar to them, and are treated of in this work under their appropriate heads.

Henry Minton,* A. M., M. D., of Brooklyn, says of the treatment of abortion:

"In dealing with threatened or actual abortion, from whatever cause it may arise, the patient must be enjoined at once to the recumbent position, in a cool room, free from all noise and excitement; and before any line of treatment is adopted we should make a thorough examination of the uterus and all the discharges. If we find the uterus empty, or the fœtus and secundines among the discharges, we should treat the case as one of ordinary labor at term. If, on the other hand, we find that no portion of the ovum has been expelled, though the os be slightly open, hemorrhage free, and the pains severe, at once make a vigorous effort to avert the threatened accident. *Enforce absolute rest;* this is necessary to the success of the remedies you will then prescribe.

* Hom. Jour. Obs., Feb., 1880.

"The physician unacquainted with the effect of potentized remedies in cases of this kind will be both astonished and gratified at the happy results following their administration.

"When prescribing give preference to that remedy which best covers the nature of the discharge, the peculiarity of the pains, the general habits of the body, and mental condition of the patient.

Remedies for a Predisposition to Abortion.

"*Act. rac., Aletr., Apis, Asarum., Aur., Bapt., Calc. c., Caul., Ferr., Helon., Hyos., Kali c., Lyc., Puls., Sabina, Sepia, Silic., Sulph., Viburnum.*

Threatened Abortion.

"*Acon., Act. rac., Ambra, Apis, Arnica, Asarum, Bapt., Bell., Bry., Calc. c., Cannab., Camph., Caust., Caul., Cham., Chin., Cinnam., Coff., Crocus, Erig., Ferr., Gels., Helon., Hyos., Ipec., Kali c., Nux m., Nux v., Opi., Pod., Puls., Rhus t., Sabina, Sang., Secale, Sepia, Silic., Stram., Sulph., Thuj., Trill., Verat. a., Viburnum.*

Time of its Occurrence.

Second month: *Apis, Kali c.*
Third month: *Crocus, Sabina, Secale, Thuj.*
Fifth month to the seventh: *Sepia.*
In the early part of pregnancy: *Apis.*
In the last months of pregnancy: *Opi.*

Causes.

Anæmia: *Alet., Calc. c., China, Ferr., Secale.*
Congestion of the uterus: *Act. rac., Bell., Canth., Caul., China.*
—— —— —— —— passive: *Caul., Secal., Ust.*
—— —— —— —— with ulceration: *Canth.*
Constipation: *Apis, Bry., Nux v., Silic.*
Cystitis: *Acon., Cannab., Canth.*
Disposed to hemorrhages: *Calc. c., Ham.*

Epidemic influenza, during: *Camph.*
Exposure to cold or dampness, from: *Dulc., Puls.*
Fright: *Acon., Gels., Opi.*
—— when the fear remains, she can not get over it: *Acon.*
Gonorrhœa: *Cannab.*
Induration of cervix: *Aur., Con., Sepia.*
Inertia, uterine: *Caul., Cimicif., China, Ferr., Puls., Sabina, Secale, Ust.*
Leucorrhœa: *Calc. c., Camph., Lyc., Sepia, Sulph.*
Nervous sensibility, excessive: *Asarum., Ferr.*
Plethora: *Acon., Apis, Alet., Calc. c., Sabina.*
Shocks, falls, bruises, or concussions: *Arnica.*
—— —— —— —— —— especially if she commences to flow, with or without pain; or pain, with or without flow: *Arnica.*
Spinal affections: *Silic.*
Strain of the loins, or over-exertion: *Rhus. t.*

Causes.

Strain in the loins, from a false step, or over-reaching: *Cinna.*
Sudden depressing emotions: *Gels.*
Suppressed grief: *Ignat.*
Syphilæmia: *Aur., Merc., Nit. ac., Phytolac., Staph., Thuj.*
Typhoid fever: *Bap.*

Character of the Discharge.

Black: *Asar., Crocus, Kreos., Plat., Puls., Secale.*
—— and coagulated: *Cham., Chin., Ferr., Crocus, Puls., Sabina.*
—— —— —— in gushes: *Puls.*
—— —— mixed with foul-smelling coagula: *Secale.*
—— —— stringy: *Crocus.*
—— —— thick: *Plat.*
—— liquid: *Secale.*

Black and offensive: *Cham.*, *Crocus*, *Kreos.*, *Secale.*
Bright red: *Arnic.*, *Bell.*, *Cinna.*, *Erig.*, *Hyos.*, *Ipec.*, *Rhus t.*, *Sabina*, *Trill.*, *Ust.*
—— —— aggravated by motion: *Sabina*, *Trill.*, *Ust.*
—— —— continuous: *Hyos.*, *Ipec.*
—— —— feels hot as it passes: *Bell.*
—— —— in gushes: *Sabina*, *Ust.*
—— —— intermittent: *Bell.*, *Rhus t.*, *Sabina*, *Ust.*
Bright red, not coagulating: *Ham.*
—— —— or dark, with coagula: *Sabina.*
—— —— readily coagulating: *Ipec.*
—— —— with coagula: *Arnic.*, *Bell.*, *Ipec.*, *Sabina*, *Ust.*
Coagulated: *Arnic.*, *Bell.*, *Cham.*, *Chin.*, *Crocus*, *Ferr.*, *Helon.*, *Ipec.*, *Plat.*, *Puls.*, *Sabina*, *Secale*, *Ust.*
Comes suddenly, and ceases as suddenly as it came: *Bell.*
Continuous: *Arnic.*, *Cinna.*, *Ham.*, *Hyos.*, *Ipec.*, *Sabina*, *Ust.*
—— but not profuse: *Ust.*
—— with nausea: *Ipecac.*
Dark: *Bell.*, *Bry.*, *Cham.*, *Chin.*, *Crocus*, *Ferr.*, *Helon.*, *Kreos.*, *Nux m.*, *Plat.*, *Puls.*, *Sabina*, *Secale*, *Trill.*, *Ust.*
—— and aggravated by motion: *Crocus.*
—— —— mixed with coagula: *Bell.*, *Cham.*, *Chin.*, *Crocus*, *Ferr.*, *Puls.*, *Sabina*, *Secale*, *Ust.*
—— —— —— —— —— dark: *Sabina.*
—— —— —— —— —— foul: *Secale.*
—— fluid: *Bry.*, *Plat.*, *Secale.*
—— offensive: *Cham.*, *Crocus*, *Kreos.*, *Sabina*, *Secale.*
—— thick: *Nux m.*, *Plat.*
Fetid: *Bell.*, *Cham.*, *Crocus*, *Kreos.*, *Sabina*, *Secale*, *Ust.*
Gushes in: *Cham.*, *Chin.*, *Puls.*, *Sabina*, *Secale*, *Ust.*
Hot, feels hot as it passes the vulva: *Bell.*
Intermittent: *Chin.*, *Kreos.*, *Puls.*
Offensive: See Fetid.
Partly thin or watery, and partly black and coagulated: *Ferr.*

Passive: *Alet., Caul., Chin., Crocus, Ham., Helon., Secale, Ust.*
Profuse: *Apis, Arnica, Bell., Cham., Chin., Cinna., Crocus, Erig., Ferr., Helon., Ipec., Hyos. Sabina, Secale, Trill.*
Scanty: *Caul., Nux v.*
Sudden: *Bell., Cinna.*
Suddenly ceases and as suddenly returns: *Bell.*
Watery: *Chin., Ferr., Kreos., Sabina, Secale.*
—— and mixed with coagula: *Chin., Ferr., Sabina, Secale.*
Worse from motion: *Coff., Crocus, Erig., Sabina, Secale.*

Character of the Pains—Hypogastric and Uterine Region.

Pain about the umbilicus, passing off into uterus: *Ipec.*
—— alternating with hemorrhage: *Cham., Puls., Secale.*
—— and distention: *Chin., Lyc.*
—— —— faint sick feeling in the abdomen: *Sabina.*
—— —— heaviness in: *Cham.*
—— —— motion in from something alive: *Crocus.*
—— excites a desire to defecate: *Nux v.*
—— —— great restlessness and agony: *Cham.*
—— in burning: *Bry.*
—— —— colicky: *Bell., Calc. c. Chin., Sepia.*
—— —— —— cutting, with frequent desire to urinate: *Cham.*
—— —— crampy uterine: *Cocc., Nux m., Vib.*
—— —— —— —— with cutting stitches: *Ignat.*
—— —— labor-like: *Apis, Bell., Calc. c., Caul., Cham., Hyos., Ipec., Kali, c. Nit. ac. Nux v., Nux m., Opi., Plat., Puls., Sabina, Secale, Sepia., Ust.*
—— —— —— —— alternating with hemorrhage: *Cham., Puls., Secale.*
—— —— —— —— as if the pelvic contents would issue through the vulva: *Bell., Nit. ac., Sepia.*
—— —— —— —— beginning in the back and extending into the thighs: *Kali c.*
—— —— —— —— —— —— —— ovarian region: *Podo.*

—— —— —— —— coming suddenly and as suddenly vanishing: *Bell.*
—— —— —— —— extending to the sides: *Cham.*
—— —— —— —— —— —— —— thighs: *Apis, Cham., Kali c., Sang., Vib.*
—— —— —— —— periodical: *Cham.*
—— —— —— —— shooting from right to left across the abdomen: *Lyc.*
—— —— —— —— spasmodic: *Caul.*
—— —— —— —— the result of injury: *Arnica.*
—— —— —— —— with frequent desire to urinate: *Cham.*
—— —— —— —— pressure on the uterus and rectum: *Ipec.*
—— —— shooting to the legs: *Vib.*
—— —— stinging in ovarian regions: *Apis.*
Sinking, empty feeling in: *Ignat., Sepia.*
Tremulous sensation in: *Plat.*
Weakness in: *Phos.*
Weight in: *Alet.*

Back.

Pains from, directly through the pubis: *Sabina.*
———— in aggravated by motion: *Bry.*
———— —— as if it would break: *Bell., Kali c.*
—— —— drawing: *Rhus.*
—— —— beginning in the back and extending into the thighs: *Kali c.*
—— —— intolerable before passing water: *Lyc.*
—— —— paralytic, rendering the legs almost useless: *Cocc.*
—— —— severe in back and loins: *Caul.*
—— —— small of: *Asar., Bell., Calc., Lyc.*
—— —— —— —— attended with great weakness: *Kali c.*
Spinal affections: *Silic.*

Mental Condition.

Anxiety, great: *Acon., Arnica Bell., Kali c., Secale.*
—— and palpitation of the heart: *Calc.*

—— —— sadness: *Secale.*
—— —— timorousness: *Bell.*
—— with great fear: *Kali c.*
—— —— —— nervous excitability: *Acon.*
Can not bear to be talked to: *Hyos.*
Confusion of mind: *Bry.*
Cries and trembles, does not know what to do: *Coff.*
Delirium: *Hyos.*
—— after severe flooding: *Chin.*
Depression of spirits: *Ferr., Ignat., Lyc., Sepia, Ust.*
Desire to talk about her condition: *Nux v.*
Dread of men: *Puls.*
Dull and stupid: *Opi.*
—— —— gloomy: *Helon.*
Ecstatic mood: *Stram.*
Fear of death: *Acon., Apis, Coff., Gels., Kali c., Secale, Stram.*
—— —— —— is sure she will die from the hemorrhage: *Acon.*
—— is sure she will abort: *Nux m.*
Full of desires: *Ipec.*
—— —— tears: *Puls.*
Hysterical: *Ferr., Hyos., Nux m., Phos., Sabina.*
——— alternation of laughing and weeping: *Hyos., Phos.*
Illusions, every thing around her seems small, and every body seems inferior to her: *Plat.*
Imperious manner: *Lyc.*
Irritable: *Cham., Ipec., Nux v., Sepia.*
Lascivious mania: *Hyos.*
Laughter, every thing seems ludicrous: *Nux m.*
Loquacious: *Hyos., Stram.*
—— indistinct muttering: *Hyos.*
Makes irrelevant answers: *Hyos.*
Mild, gentle, tearful, yielding: *Puls.*
Moans, which affords relief: *Bell.*
Momentary arrest of thoughts: *Asar.*

Mood, suicidal: *Aur.*
Morose and serious: *Bell.*
Nervous: *Asar., Cham., Chin., Ferr., Opi.*
—— and hysterical feeling: *Ferr.*
—— —— irritable: *Cham., Nux v., Opi.*
Obstinate and passionate: *Bry.*
Over-sensitiveness: *Bell., Nux v.*
Quietly disposed: *Trill.*
Restless: *Acon., Bapt., Dulc., Rhus t.*
—— anxiousness: *Crocus.*
—— quarrelsome: *Dulc.*
—— mental: *Bapt.*
Short time seems a long while to her: *Nux m.*
Sighing and sobbing: *Ignat.*
Startled easily: *Bell., Cocc.*
Stupid, half-asleep condition: *Opi., Secale.*
Taciturn: *Nit. ac.*
Tearful: *Puls.*
Thinks herself well: *Kreos.*
—— she is not at home: *Opi.*
Weeps much: *Kali c.*"

CHAPTER XXXVII.

CYSTS OF THE BROAD LIGAMENT, AND DISEASES OF THE FALLOPIAN TUBES.

THE cysts which sometimes develop in the folds of the broad ligament should be well understood, that if possible they may be correctly diagnosed, as they are somewhat likely to be thought to be ovarian tumors. This error of diagnosis leads to an error in treatment, and the patient's life is endangered by an operation for their removal, which is quite unnecessary.

Etiology and Pathology.

The etiology of cysts of the broad ligament we are unable to satisfactorily explain. They probably arise from irritation between its folds. They sometimes exist of very small size, and are only discovered at the *post mortem*. In other instances they attain to an enormous size. They contain a watery, slightly albuminous fluid. The sac is thin, although sometimes thickened in a part of its surface from deposit of fibrinous material. They seldom attain to the immense proportions of some of the larger ovarian cystoma. The small-sized cysts are supposed to be from the terminal bulb of the tube. Cyst of the broad ligament is usually pedunculated.

Diagnosis.

They develop in the iliac regions like ovarian tumors, but are more fluctuating while yet small. (The ovarian tumor is usually hard while small.) As they become larger they may be felt fluctuating equally on all sides and in every direction. When only of the size of an egg they may sometimes be felt in Douglas' pouch, soft and fluctuating. The

symptoms complained of are weight in the pelvis, together with tenderness, some nausea, prostration of strength, etc.; but there is little disturbance of the menstrual function for some time, and in some cases not at all. When there is any trouble in this direction it manifests itself by a more than ordinarily free flow. (See page 301 for differential diagnosis.)

Prognosis.

The prognosis is favorable in the majority of cases of cysts of the broad ligament. The cyst may rupture spontaneously and recovery take place without any very serious symptoms, the contained fluid not usually producing any irritation of the peritonæum in case the cyst is not large. They may be removed by tapping with but little danger to life, and they are not liable to refill. When mistaken for ovarian cystoma, and an operation for their removal is attempted, the dangers of the operation are greater than those to be apprehended from allowing the cyst to remain. Still, after the abdomen is opened, the sac and contents better be removed.

Treatment.

The small cyst in Douglas' pouch may be evacuated with a long trocar, with little risk, through the posterior vaginal wall; but when they cause little or no inconvenience they should be let alone. When of large size, so as to be cumbersome in the abdomen, they should be evacuated with a canula or aspirated through the abdominal walls. It has been recommended to inject them with *Iodine* at once; but this is not necessary. They usually do not refill after they are drawn off thoroughly. Should they do so, we may inject them after the second aspiration with greater propriety, using a solution of *Iodine* of about the strength of fifteen *grs.* of *Iodine* to the *oz.*, which should be aspirated out of the sac after it has been introduced ten minutes or so. There is always some danger in these cases that the *Iodine* will escape into the peritonæal

cavity, and produce peritonitis. Hence we should not use the injection unless we find the sac refills.

When aspirating a cyst of the broad ligament, the abdominal many-tailed bandage should be applied and tightened by assistants, that the patient may not suffer from the shock of having so much pressure suddenly taken off the abdominal muscles, as is caused by the evacuation of a large cyst of the broad ligament. In case the abdomen is opened for the removal of a fibro-cyst of the ovary, and the case is found to be a cyst of the broad ligament, we may proceed to evacuate the cyst with the Spencer Wells' trocar, ligate the pedicle of the cyst, and remove the sac, dressing the incision, the same as after ovariotomy.

Diseases of the Fallopian Tubes.

TUBAL DROPSY—TUMORS OF THE FALLOPIAN TUBE—HYDROPS TUBÆ—FIBROIDS OF TUBES—MYOMA—CATARRH—BLOODY TUMOR—INFLAMMATION—SALPINGITIS—PYOSALPINX—OCCLUSION—HYDROSALPINX—TUBAL PREGNANCY—CANCER OF THE TUBES—DISPLACEMENT OF THE TUBES—TUBERCULOSIS OF THE TUBES, ETC.

Description and Etiology.

The Fallopian tubes are liable to various diseases which simulate somewhat disease in other organs, especially the ovaries, and are present in many obscure cases where the diagnosis is difficult.

Probably the most frequent of these diseases is catarrh of the tubes. The diseases of the tubes have the peculiarity of occurring in both at the same time, as a rule. These diseases result most frequently from inflammation, and as a rule are a result of the extension of inflammation already established in the uterus or peritonæum.

The acute inflammatory condition is termed *Catarrh of the tubes* or *salpingitis*. When chronic, it is termed *inflammation* of the *tubes*. When the canal in the tubes becomes partially or wholly obliterated, it is called *occlusion*. When they are occluded at both ends and are open in their central

portion, and there is an effusion of fluid into this open space, it is termed "*Dropsy of the tube;*" *Hydrops tubæ* or *Hydrosalpinx*, when the fluid is watery; and a *bloody tumor* when it consists of blood. *Tubal pregnancy* signifies the impregnation and lodgment of an ovum in the tube. It usually goes on till about the third month, when rupture of the tube is produced from the distension, and the patient dies of internal hemorrhage. *Fibrous tumors* or *Myoma* are rare in this locality, though they have been found. Simpson describes one as large as a child's head. They are usually of smaller size, however, and are not frequently discovered till after death. When of considerable size and are discovered during life, they are usually supposed to be *ovarian tumors.* If they exist for years and remain about stationary in size, the probabilities are that they are *fibrous tumors* of the *tube*, or *uterus;* and it is sometimes impossible to tell which. We are not justified in advising or attempting the removal of either form of these moderate-sized tumors; hence we sometimes have to be content without knowing their exact attachment, which is immaterial so far as the management of the case is concerned.

Pyosalpinx is the term applied to suppuration of the internal surface of the tube. This may lead to ulceration and perforation into the abdominal cavity.

Förster, Wagner, Van Dessauer and Wylie have reported cases. Perforations have also been known to take place into the rectum and bladder.

Pyosalpinx must be preceded by inflammation, and it is liable to result in occlusion of the tubes, and at least cause barrenness. *Cancer* does not occur primarily in the tubes, but may implicate them by its extension from the uterus.

Symptoms and Diagnosis.

The symptoms of diseases of the Fallopian tubes are usually obscure, and they are sometimes diagnosed by exclusion,

i. e., by evidence which shows the disease is not anywhere else.

First, we have sterility. This may be caused by various conditions, but when we find that the vagina and uterus are normal in development, location and secretions, and when we observe evidences of healthy ovulation, we must conclude that in the married woman (who desires offspring, and who has a healthy husband) there must be disease or absence of the Fallopian tubes.

When inflammation has pervaded the pelvic organs, and we find all evidence of its presence has passed away from the uterus, cellular tissue, ovaries, etc., and there is still some tenderness upon pressure in the lateral portions of the vaginal *cul-de-sac*, we may strongly suspect salpingitis or inflammation of the tubes.

Where ovulation appears to go on normally, and still there is no impregnation, and no evidence of other disease is present, we may suspect occlusion of the tubes.

If there has been no evidence of disease of the parts, in the history of the case, we may suspect congenital occlusion of the tubes.

Tubal pregnancy is to be suspected when we have the ordinary symptoms of pregnancy, including a partial arrest of the catamenia, with pain in the region of the tubes and no enlargement of the uterus, and especially if at about the third month symptoms of collapse come on, and the patient dies suddenly.

Fibroma or *myoma* of the tube may be suspected when we can discover a solid tumor in the iliac regions of both sides, and we find that the development only reaches a moderate size.

In dropsy of the tube we may sometimes feel the enlarged tube by digital examination per rectum, or if of large size in the iliac regions. The enlarged tubes in these cases feel nodulated or bulbous, like a string of beads the size of

hickory-nuts. We have barrenness, of course, with all these varieties of diseases of the tubes, if affecting both, which is most usual.

Sometimes the post-mortem reveals the first real knowledge we have of disease of the tubes.

Prognosis.

The prognosis of tubal disease is quite positive in its development of barrenness, except in tubal pregnancy, where no further conception is likely to follow, as death is the rule. Occlusion is, of course, incurable. All the diseases of the tubes are little amenable to treatment; and the recuperative powers of nature are well shown in recoveries from *salpingitis*, *hydrosalpinx*, and *pyosalpinx*, recovery from *pyosalpinx* being, however exceedingly rare. Cases may recover, and we never know what the real disease was; hence, it would be very difficult to prove, or show by argument that pyosalpinx had existed and recovery had taken place. Dropsy of the tubes is not so likely to end fatally. It may end in resolution or absorption, or remain for years without causing death. When the distension is so great as to cause rupture of the tube death results, as in rupture of the tube from tubal pregnancy.

Treatment.

In dropsy of the tube, when the distension is so great as to produce much annoyance to the patient, it should be aspirated through the vaginal cul-de-sac. If of small size it may be allowed to remain; and remedies should be given according to the indications. Usually *Ars. alb.*, *Dig.*, *Secale*, *Apocyn. can.*, or *Spigelia* will be found indicated.

The bloody tumor of the tube may be aspirated, and then injected with a weak *Solution of Iodine.*

In *tubal pregnancy*, we recommend that in cases where the diagnosis is clear the best treatment is to operate as in ovarian tumor, and remove the ovum, together with the tube.

This, in our opinion, offers the patient a chance for life, which she has not, if allowed to go on to spontaneous rupture of the tube. The trouble arises in making a diagnosis of the case. When this can be made positively I am quite clear in the conviction that an operation for its removal is desirable. I have never attempted the operation, nor do I know that it has ever heretofore been recommended, but I am disposed to try it on the next case of tubal pregnancy which comes under my care.

If the physician is at hand soon after rupture of the tube has taken place, my opinion is, that it is his duty to open the abdomen at once, pass a ligature about the tube, and remove the part of the tube containing the fœtus. Sponge out the abdominal cavity and remove the blood which is found there as gently as possible. Close the incision carefully and perfectly with interrupted suture and adhesive plaster. Stimulate the patient as actively as possible with *egg-nog*, *brandy*, *beef tea*, etc. In this way a life may sometimes be saved.

Fibrous tumors of the tubes do not usually require removal; and when they do the operation is the same as in the removal of ovarian tumors, to which the student is referred.

Cancer of the tubes, occurring, as it does, in connection with cancer of adjacent parts, requires no special mention here. No treatment is likely to avail any thing when the disease becomes so extensive as to implicate the Fallopian tubes.

Displacements of the Tubes.—The Fallopian tubes may become displaced from various causes, the chief being from traction made upon them in cases of displacement of the uterus, and in cases of tumors of the ovaries or uterus. These displacements are of little account, except as they tend to produce barrenness; and in other cases when they have become adherent in the pelvis they offer an obstruction

to the rise of the uterus into the abdomen in pregnancy. Tumors of the tube itself may also cause displacement.

Tuberculosis of the Tubes.—Tuberculosis of the tube sometimes occurs before puberty, and might prove a cause of amenorrhœa; and it may develop at any period of life. I know of no way to make a diagnosis before death. It is most common that tuberculosis in the tubes is accompanied with the disease in some other part or organ, and does not often exist as a primary affection in the tubes.

CHAPTER XXXVIII.

DISEASES OF THE URETHRA.

URETHRITIS, CARUNCLES OF THE URETHRA, IRRITABLE URETHRAL CARUNCULÆ, ULCERATION, FISSURES OF THE NECK OF THE BLADDER, OR MEATUS URINARIUS INTERNUS, LACERATIONS OF THE URETHRA FROM DILATATION, PROLAPSE OF THE URETHRA, URETHRAL POLYPI, ETC.

Diseases of the urethra are not very well understood by most practitioners, and even specialists are sometimes charged with overlooking them. These diseases are usually termed *bladder* or *kidney* troubles by the busy practitioner, and the people labor under the same error very often. It is time the profession took note of the fact, that diseases of the urethra are as important as any. Painful micturition is a matter of great moment to a patient who suffers in this way for years. (I removed a urethral polypus from a lady two years since, and effected a perfect cure, who had suffered untold tortures from its presence for over twenty years, her physicians having failed to make a correct diagnosis.)

Etiology.

Cold and the irritating qualities of unhealthy urine develop most, if not all, the diseases of the urethra, except laceration. Inflammation of the part, called urethritis, is the first development, and from the enlargement of the mucous follicles arise the *urethral polypi*, and the *irritable urethral carunculæ*. Foreign bodies passed into the urethra by intent or accident may cause inflammation, and lead to ulceration.

Diagnosis.

Chronic cases of painful micturition should be subjected to ocular examination. In *irritable urethral carunculæ*, digital

examination reveals the presence of enlargements around the meatus. The irritable carunculæ are extremely sensitive to the touch. Occasionally urethral polypi may be felt hanging from the urethra; they are not usually sensitive to the touch, but produce straining after micturition, and frequent desire to urinate, if they are attached within the urinal canal. By ocular examination we discover their attachment and nature. They are usually bright pink in color, and vary in size from one-eighth of an inch to an inch in diameter. These tumors may be found single or multiple.

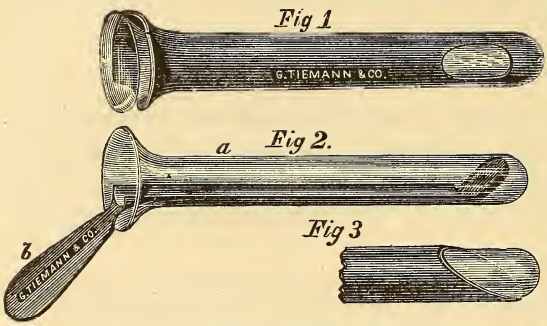


FIG. NO. 44.—SKENE'S URETHRAL ENDESCOPE.

If we find no external tumors in or around the urethra, we should inspect the interior of the canal as thoroughly as possible. An ordinary urethral speculum, with two small blades is usually sufficient for this purpose. (See Fig. 45.) Dr. Skene, of Brooklyn, has invented a cylindrical speculum, through which the urethral canal may very well be examined by the aid of a movable mirror in its interior. Dr. A. R. Jackson has also a cylindrical urethral speculum, tapering at one end.

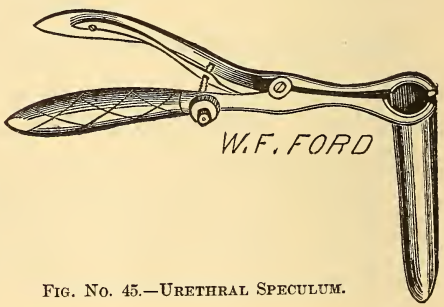


FIG. NO. 45.—URETHRAL SPECULUM.

Whichever instrument we use, we must try to be sure to find any urethral polypus which may be in the canal. The chief objection to the use of the cylindrical speculum is, that the polypus is likely to be pushed up into the bladder, or at least pressed upwards in the urethra, by

introducing the speculum. These polypi, being soft and compressible, are not detected while in the urethra, without considerable care and skill. For the discovery of a polypus of the urethra in the female, I prefer the bivalve speculum, consisting of two slender blades. We may distend the urethra, first from side to side, and examine the upper and lower sides of the canal, and then turn it one-quarter way around, and examine the lateral walls. A probe should always be at hand, that we may lift up any apparently loose tissue discovered, and ascertain if it be a polypus. By means of this examination we may also discover inflammation, laceration, or ulceration of the urethra if they exist.

Fissure of the neck of the bladder, or internal meatus, can best be discovered by making a visico-vaginal fistula, and drawing the meatus into view through the fistula by means of a tenaculum or with forceps. Lacerations from attempted dilatation of the urethra affect the mucous and submucous tissues, and cause active and sometimes alarming hemorrhage.

Fissure of the internal meatus may sometimes be diagnosed by passing a probe which is somewhat curved near the end, which is introduced into the bladder, and then withdrawn till the curve at the end presses the neck; then gently move it from place to place, and press gently downwards. If we find no pain is produced, except at one or two points, this examination, taken in connection with the history of the case and the smarting, burning pain in passing water, is very good evidence of fissure, if there is an absence of other conditions calculated to cause these symptoms. The pain in urinating caused from inflammation of the urethra, fissure, and laceration, is smarting, burning, or cutting. The pain from cystitis and urethral polypi, is bearing down, straining, with frequent desire, and unrelieved feeling after the water has passed.

Prognosis.

The prognosis is hopeful; when proper treatment is employed urethritis may recover without special treatment. The other diseases of this canal are not likely to do so well if let alone. We know of no difficulty to which women are liable, which is likely to be so poorly or improperly treated, and hence many a case supposed to be inflammation of the bladder goes on for years unrelieved.

Treatment.

The treatment of simple urethritis is much the same as for cystitis, as regards the indicated remedies. They are *Canthar.*, *Cubeb.*, *Acon.*, *Bell.*, *Can. ind.*, *Cal. carb.*, *Bry.*

Aconite being indicated for the acute attack, with dizziness, a wiry pulse, aching of the bones, etc.

Bell., where the disease is recent, and there is dullness of the intellectual faculties, tenderness over the lower part of the abdomen, etc.

Bryonia, when the disease is accompanied with evidence of general affection of the mucous membranes throughout the system, with cutting pains, sharp, piercing pains, etc.

Cubebs, *Canthar.*, or *Can. ind.*, where the disease is chronic.

Cal. Carb. where there is a *leucorrhœal* complication.

Caruncles, or the *irritable urethral carunculæ*, are to be treated much like piles about the anus. The local application of *Calendula* or *Hydrastis* wash, applied warm by means of soft cloths saturated and applied to the parts, gives much relief, as does *Bell. ointment. Hamamelis,* externally and internally, is also an excellent remedy.

The *polypi* in the *urethra*, if protruding from the external meatus, may be seized with forceps, and removed by torsion, always having ready the *Ferri persulph.* to apply with a roll of cotton, or some other convenient means, in case much

hemorrhage follows the operation. If these polypi are entirely within the urethra, we dilate the canal as gently as possible, till we can seize and remove them by torsion as before.

Lacerations of the urethra from accident, or from forcible distention, may require the local application of *hæmastatics* to arrest the hemorrhage; and placing a gum elastic catheter in the bladder to keep the urine from coming in contact with the raw surface, is a desirable means of obtaining healing by first intention. Internally *Arnica* is a useful remedy in these cases.

Ulceration in the track of the canal of the urethra, if syphilitic, must receive treatment such as is given chancre in other localities. The non-specific sore or ulcer is to be stimulated by local applications of a *Solution of Iodine*, two or three grains to the ounce, and then leaving for a time a tent smeared with *Vaseline* in the urethra, using these applications every one or two days. To treat readily these ulcerations and internal polypi of the urethra, as well as fissures at the meatus internus, we dilate the urethra with sponge tents. These may be medicated with advantage, and should be long, so as to dilate the entire canal. *Hydrgr. chlo. mit.* is a fine application to the ulcer or fissure in this tube. The powder may be sprinkled upon the tent after it is moistened with *Glycerine*, and applied directly to the affected part by inserting the tent. The tent should not remain more than two hours before it is removed. Internally, *Merc. cor.*, *Kali idro.*, *Thuja*, *Cal. carb.*, *Sulph.*, etc., are usually indicated. (*Canthar.*, *Cubeb.*, etc., are of little or no use in these cases.)

When we are unsuccessful by these means in curing the fissures of the neck of the bladder we may resort to an artificial vesico-vaginal fistula, which we have described in connection with the treatment of chronic cystitis.

In the case of fissures, they should be freshened when

they can be brought into view through the fistula; or, we may apply the sharp point of a stick of *Argentum nit.* to the bottom of the fissure every three or four days; or, apply the *Hydrgr. chlo. mit.* dry to them by means of a sound wrapped in cotton. Generally there is some *chronic cystitis* in these cases, and the injections of warm water, with castile soap in it, passed through the fistula daily, are of much service. When the fissure and cystitis are cured, place a catheter in the bladder through the urethra, and let the fistula heal if it will. If we find it will not heal in a few weeks we freshen the edges, and stitch them together, as in an ordinary case of vesico-vaginal fistula.

CHAPTER XXXIX.

TUBERCULOSIS OF THE VAGINA—STENOSIS OF THE UTERUS.

Tuberculosis of the vagina is worthy of but little remark, as but two cases are recorded, Virchow mentioning one and Klob another. In these cases the disease was associated with tubercular deposits in other parts of the body. Tuberculous deposits in the vaginal membrane may sometimes be diagnostic of the real difficulty in disease of the liver, urinary organs, or bowels, which would otherwise be harder of diagnosis. They may also teach us how the tuberculous ulcer develops, and possibly in time may aid in suggesting the proper treatment in tuberculosis, which is to-day very unsatisfactorily treated by all schools.

Symptoms.

We have in tuberculosis of the vagina the general symptoms of tubercular disease affecting other parts of the body, most prominent among which are the tuberculous *cachexia*, evident *faulty nutrition*, the sallow, pale hue of the skin with a bright flush on the cheek, the hopeful state of mind, etc. Locally we have a feeling of irritation in the vagina. On examination indurated spots are felt like the eruption in small-pox. After several weeks or months these hard nodulated spots soften and burst open, and an open ulcer is the result.

Prognosis.

The prognosis is, in the present state of our knowledge, unfavorable, though life may continue for years.

Treatment.

Phytolac. Dec., Iod. of Ars., Merc. iod., Ars. alb., etc., are the indicated remedies. Locally a weak solution of *Iodine*

applied with a soft brush every day, using warm water vaginal injections once or twice a day, are useful; giving good nourishment and allowing the purest air, with frequent bathings with salt tepid water, and rubbing the surface of the body with the naked hand are found to be the most useful hygienic measures which can be instituted, conjoining with these moderate exercise in the open air.

Stenosis of the Uterus.

Description and Etiology.

Stenosis of the uterus may be congenital or acquired. The seat of constriction is usually at the external os in stenosis, rarely at the internal os; occasionally it affects the entire cervical canal, while in flexions of the uterus there is very often constriction at the internal os only. Stenosis may be caused from inflammatory action in the virgin state, or be caused after one or more gestations, from inflammation of the cervix and narrowing of its canal, especially, when the preceding labor has been severe, or it may result from the use of caustics or instruments passed into the cervix to cause miscarriage, or for other purposes. Lacerations of the cervix in labor may heal so as to cause stenosis. Many cases supposed to have been congenital may have resulted from inflammation in the cervical canal in childhood or early youth.

Diagnosis.

Where the disease is congenital, or has resulted from some cause in early life, the cervix uteri is felt projecting more sharply than natural into the vagina, and the os is felt as a very slight indentation, or not felt at all. The eyesight in some cases can scarcely discover the os when the cervix is brought into view with the speculum, and we find that only a small probe will enter the os. In stenosis coming on later in life, after one or more confinements, the os is

felt a little more open than already described, but upon attempting to pass the sound we are baffled, and find that only a small probe can be introduced. These are the positive diagnostic symptoms of stenosis. *Dysmenorrhœa* is a symptom indicative of stenosis, although in a few cases where the flow is moderate the blood may find its way out without causing much pain. In the married, *sterility* is a symptom that may lead us to suspect stenosis, whether there is dysmenorrhœa or not.

Prognosis.

This is not grave in but few instances, and only then as it tends to cause complete atresia of the cervix, and wears out the patient from painful menstruation. By means of dilatation we may expect complete relief, not only to the dysmenorrhœa, but the sterility as well.

Treatment.

Remedies.—These are *Secale cor.*, *Puls.*, *Bell.*, etc. In the majority of cases *dilatation* by mechanical means is our only resort. Various measures have been devised for this purpose. Some incise the cervix with an instrument called a *metrotome* or hysterotome. (See page 145.) Others dilate the cervical canal forcibly and almost instantly with a *dilator* with two blades. Some dilate and incise at the same time. My own preference is, however, for dilatation with bougies till we are able to insert a sponge tent, and use that, to accomplish a free dilatation, and at the same time dilate gradually; by this means I have been very successful in relieving the dysmenorrhœa, and in many cases who married, or who were already married, pregnancy afterwards resulted. Of course, the usual care necessary in introducing sponge tents in any other case must be observed.

I protest against incising the cervix in these cases. Incision without dilatation is a fraud. The incised surfaces are bound to heal and form a cicatrix, which makes the latter

condition worse than the first, unless the parts are kept dilated till healed. With incision, there is more risk of inflammation and septicæmia following.

If the stenosis is complicated with elongation of the cervix to a great degree, it is best to amputate a part of the cervix at once, taking care to insert a tent into the os during the healing of the cervix. (See page 169.) The amputation of the elongated neck may remove all the constricted portion of the cervical canal, and consequently make dilatation unnecessary. Treatment by means of bougies alone will usually prove curative. The treatment must be carried to the extent of being able to introduce a very large size. Gradual dilatation by bougies or sponge tents is in accordance with nature, and is to be preferred, in all cases, in my opinion. The cicatrix formed after incision, even when it is made successful by dilatation, greatly endangers laceration of the cervix in labor if pregnancy should ensue, and it is to be hoped that incision of the cervix, as a rule, in cases of stenosis, will soon fall into merited disuse.

CHAPTER XL.

CYSTITIS IN WOMEN.

Cystitis, or inflammation of the bladder, is not peculiar to women; but some of the causes which give rise to this disease in women are peculiar to them, and particularly interest the gynæcologist.

Symptoms.

Among the first and most prominent symptoms of cystitis is painful micturition, with a frequent desire to pass water, which is accomplished with much straining and difficulty, the water being passed drop by drop in some cases. Soon in the history of the disease mucus is thrown off from the lining membrane of the bladder in large quantities. This is tenacious, and adheres to the bottom of the vessel in which the urine stands for any length of time. Sometimes streaks of blood are mingled with the mucus.

These symptoms, together with a wiry pulse, some fever, or alternating chill and heat, loss of appetite, constipation, and headache, characterize a case of *acute cystitis;* but the disease often becomes sub-acute and chronic, in which case the symptoms moderate in intensity, although the mucus discharged is often very large in amount.

Etiology.

The causes which produce cystitis which are common to both male and female are cold, external violence, irritating qualities of the urine, stone, gravel, etc. Those causes operating in women only, are retro-version, ante-version, and ante-flexion of the uterus, long continued pressure of the head

of the child in confinement, extension of inflammation from the uterus, ovaries, or cellular tissue in cellulitis, or from peri-metritis.

When cystitis is caused from displacements of the uterus the irritation generally commences in the urethra, and extends over the entire bladder if not arrested. In this case it is produced from the pressure of the uterus against the urethra behind the pubis, causing a frequent desire for micturition. In some cases this is the most prominent symptom which the case presents of ante-flexion or ante-version. I will relate one case, which is an example of many I have seen.

Mrs. ———, a very wealthy lady of this city, mother of four children (youngest nine years of age), native of Germany, of robust constitution, aged about thirty-four years, consulted me eighteen months since. She stated to me that soon after the birth of her last child she had commenced to be troubled with frequent desire to pass water, that she had been under treatment almost constantly ever since without getting any relief; for upwards of three years a prominent physician of Cincinnati had the treatment of her, and that she then went to Philadelphia and New York, and finally to Paris and Vienna, where she had employed those physicians of greatest celebrity. She felt entirely discouraged, having endured the severest ordeals, all having addressed their treatment to the relief of cystitis. Every thing had apparently been done, which her physicians could think of.

She came to me with her husband, who seemed to deeply sympathize with her, and who told me that on account of my having cured a friend of theirs of a chronic ailment they had concluded to try again to see if any thing could be done, the matter of expense being no object. I proceeded to make an examination, and found a condition of chronic sub-acute inflammation of the bladder, and besides that, and causing the trouble, an ante-verted uterus, firmly pressed down by a pendulous abdomen. I proceeded to raise the abdominal

viscera with a silk elastic abdominal supporter, and in a few days replaced the uterus; gave internally *Cantharides* 6^{x} for a week, and then *Can. ind.* 3^{x} for a week. and then *Nux* 6^{x}. She fully recovered in six weeks, and remains well yet. The ante-version of the uterus was clearly the cause of the cystitis in this case, and it had been entirely overlooked. I should remark, in excuse for the oversight, that the lady had no backache, and menstruation had been easy, normal in amount, and regular.

Treatment.

Cantharides, *Can. ind.*, *Cubebs*, *Copaiba*, etc., are the remedies for *chronic cystitis*, after removing the exciting cause, which is of the first importance in all cases of this as well as other diseases. In acute attacks of cystitis caused from cold, *Aconite*, *Puls.*, or *Bell.*, are chiefly indicated.

In acute attacks, caused from external violence, or from the pressure of the head of the child in confinement, *Aconite* and *Arnica* are the remedies needed.

Of cystitis caused from stone in the bladder, I will speak in the next chapter.

When caused from the irritating qualities of the urine, or

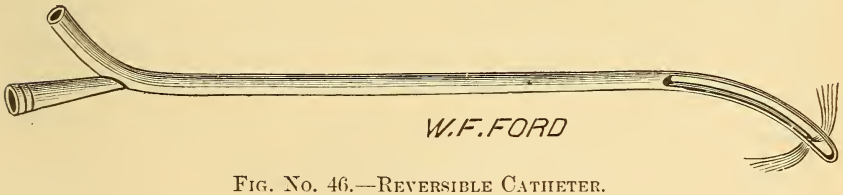


Fig. No. 46.—Reversible Catheter.

gravel, the analysis of the urine will reveal the remedies needed. In some cases it is found that remedies to chemically change the constituents of the urine are demanded; at other times this may be accomplished through improved *digestion* and *assimilation*. Works on renal diseases should be consulted in these cases.

Locally we sometimes obtain benefit in chronic cases from

washing out the bladder by means of a Davidson's syringe, attached to a reversible catheter. (See Fig. No. 46.) The object of this washing is to remove the thick mucus or pus from the bladder, and perfectly evacuate all the urine, as the retention of the urine is a great source of irritation. This retention of the urine is occasioned by the blocking up of the urethra with this matter, causing tenesmus and a frequent desire to micturate; for this injection clear tepid water, or water containing a small amount of castile soap may be used, and after the bladder is thoroughly washed out, a solution of about ten drops of carbolic acid to the ounce of water may be injected, and enough used to slightly distend the bladder. This may be accomplished by stopping up the external opening of the double catheter. After the water is retained in this way about five minutes it may be allowed to flow away. Little or no good results from any kind of anodyne injections. They very often do not relieve the pain at all.

In some extreme chronic cases, where the tenesmus is unendurable, and the inflammatory action affects the kidneys and other abdominal organs, as well as the bladder, and remedies and injections prove of no avail, it is advisable to establish a vesico-vaginal fistula by operation, keeping it open till the cystitis is cured. By this means the free evacuation of the mucus, pus, and stale urine is accomplished, and we have access directly to the diseased surface.

Operation.

The operation for making a vesico-vaginal fistula is quite simple; still there are some practical hints which we may make for the benefit of the student. There is a space between the bladder and the vagina where they lie in direct contact, being separated by little or no cellular tissue; and on account of their near and intimate juxtaposition it is advisable to establish the fistula at this point, so as

to prevent the infiltration of urine into the cellular tissue, which would lead to cellulitis. This point is in the shape of a triangle with the base upwards, reaching from the orifice of one ureter to the other, the apex downwards at the commencement of the urethra. Within this triangle the anterior wall of the vagina and the posterior wall of the bladder lie in contact. Just outside of the line of the ureters, which are about an inch apart, we have blood-vessels. These we wish, of course, to avoid; hence the incision should be directly in the median line, and within the triangle just described.

Having now some understanding of the anatomy of the parts, we proceed with the operation. The patient is placed upon the operating table, and the bladder made slightly tense by injecting into it tepid water; we now administer an anæsthetic, and lay the patient upon the left side. After this we introduce into the bladder a short, grooved staff, bent nearly at right angles, about four inches from the end which we introduce; this is held in position by an assistant, when we dilate the vagina with a large-sized Sims' speculum, so as to bring into view the anterior wall of the vagina. We now insert the index finger of the left hand into the vagina, and by its side a sharp-pointed bistoury, with its edge directed backwards, held in the right hand. We now feel for the staff, and pierce the vaginal and vesical tissues at one thrust, till the point of the bistoury strikes into the groove in the staff about one and one-half inches from the meatus externus. We now press the bistoury upwards, keeping it firmly in the groove of the staff (first noticing that the staff is held in the median line), cutting upwards about an inch. We may now seize each side of the slit tissue with the forceps (after withdrawing the bistoury and finger), and with the scissors snip off a fourth of an inch or a little more from each side of the incised surfaces. This makes the opening more oval-shaped, and tends to prevent healing of any considerable portion of the cut surfaces.

Usually there will be very little hemorrhage from the operation, if the directions I have given are closely followed. If, however, by accident the incision is made to the side of the triangle described, or is carried too far upwards, the large blood-vessels of the bladder may be wounded; they lie in the sulcus just outside the line of the ureters. Should we find that there is much hemorrhage, we should seize the bleeding vessel with the artery forceps and twist it around four or five times (this is called torsion); or we may apply the *Pulv. Persulph.* of *Iron.* If these means fail, we must apply a ligature to the incised vessel.

This establishes a condition for the patient truly pitiable, 't is true, but one of comparative comfort, by the relief which it brings in stopping the tenesmus, pain, burning, scalding and fever, and enables the general system to recuperate, and the bladder is relieved from the irritating qualities of the urine.

Prof. Emmet,* of New York, is the first to have performed this operation. The idea was suggested to him by Dr. Sims. Prof. Parker had, however, in 1850 operated upon a similar principle for the relief of chronic cystitis in the male. Dr. Emmet operated on his first case in this manner in 1861. In 1858 Dr. Sims made the suggestion to leave a vesico-vaginal fistula open for the relief of cystitis.

Dr. Bozeman† claims priority in this operation. He operated also in 1861, successfully. Dr. Emmet had carried out the principle in 1858 by advice of Dr. Sims. All seem to have obtained the idea from Dr. Parker's operation on the male performed in 1850. Professor Montrose A. Pallen‡ recommends opening the bladder in these cases with a red hot iron, called the *Paquelin thermo-cautere.*

We are of the opinion that burning human flesh emits too

* Emmet's Diseases of Women, p. 728.
† New York Jour. Obs., January, 1871.
‡ Amer. Jour. Obstet., Vol. XI, April, 1878.

much the odor of the dark ages, and we can wish for no return of their experiences. The object of using the hot iron is to prevent the closure of the fistula. It can be accomplished by other means. In fact, it is not often very fast to heal if left to itself; and, as the treatment after establishing the fistula is to wash out the bladder freely by some means daily through the fistula, it is not likely to heal rapidly. We therefore dispense with the hot iron *in toto*. After curing the cystitis, which may take six months or two years, we close the opening, as in any ordinary accidental vesico-vaginal fistula.

Indications for Remedies in Cystitis.

Aconite.—Painful urging to urinate; urine passes drop by drop, is scalding; red or dark colored, with a hot, dry skin; restlessness, etc.; fear and alarm.

Arsenicum Alb.—Blood in the urine; burning in urethra during micturition; involuntary discharge of urine; general congestion; sad moods; cold, with hot flashes; thirst, etc.

Belladonna.—Congestive condition; pain in the bladder; flushed face; sense of fullness in the head; intolerance of light.

Cannabis Indicus.—Painful micturition; large amount of mucus in the urine; mucus adheres to the vessel when cold; excessive sexual desire; general coldness of the body; frightful dreams, etc.

Cantharis.—Intolerable tenesmus in the bladder; cutting pains in the urethra; bloody urine; constant desire to urinate; retention of urine.

Copaiba.—Painful urging to urinate; bloody mucus in urine, with dysentery; pain in the ovaries, etc.

Digitalis.—Constant urging to urinate; great weakness; itching all over the body; coldness of the skin, with palpitation of the heart.

Pulsatilla.—Tenesmus in the bladder; urine very offensive, bloody and slimy, with amenorrhœa from cold.

CHAPTER XLI.

STONE IN THE BLADDER AND URETERS.

Stone in the bladder is peculiar to no age or condition, *cystin calculi* being more common in the very young, and *phosphatic calculi* in those older. The uric acid calculi is the most common in the male and the phosphatic in the female.

Without doubt, the condition of the urine has much to do with the formation of stone in the bladder, ureters, and pelvis of the kidney (where they are called gravel). These gravel forming in the pelvis of the kidney sometimes lodge in the lower part of the ureter, and increase in size by deposits from the urine; or they may pass into the bladder. Gravel may form in the bladder primarily from the long continued retention of the urine, in cases where this secretion is heavily loaded with elements favorable to the formation of calculi; or they may form in the pelvis of the kidney, pass through the ureters into the bladder, and there increase by a sort of incrustation process from the deposit on their surface of the peculiar elements which are in excess in the urine.

The effect of the imperfect evacuation of the bladder, from any cause, seems greatly to tend to the production of stone. Emmet* relates a case, occurring in 1868, who was paralyzed in her lower limbs from an injury to the spine caused by a fall. Four months after the fall urine began to escape per vaginam, and in a few days calculi enough passed this way to fill a large sized tumbler. He says, the condition of the bladder had been neglected, and it had been allowed to be distended for much of the time, and the urine being highly phosphatic, had given rise to the formation of

* Emmet, Diseases of Women, p. 741.

calculi, which by their pressure upon the vesico-vaginal septum had produced a slough (on account of the impaired vitality of the parts), resulting in the vesico-vaginal fistula, through which the urine and calculi passed.

The formation of stone in the bladder has sometimes followed in a year or two after the operation for vesico-vaginal fistula; a bit of wire or thread which had been cut, but not entirely extracted, acting as a nucleus. Sometimes an irregular adjustment of the tissues in the operation for fistula serves as a cause of the retention of a part of the urine, and favors the formation of calculi.

In some cases, a calculus is the *cause* of vesico-vaginal fistula, it becoming wedged in between the pubis and the head of the child in labor causes a slough, which results in a fistula. The fistula might not be large enough to allow of the discharge of the calculus through it; and if it is closed by operation without an examination for stone, we will sometimes find that a calculus is in the bladder; and it will be a surprise that the stone formed so soon, whereas, really the stone was there at the time of the operation, and was the prime cause of the fistula, as just mentioned. In view of this fact, I scarcely need mention the advisability of passing the finger into the bladder, and making a thorough exploration for a stone, before closing a vesico-vaginal fistula, which has resulted from labor.

Symptoms.

The symptoms of stone in the bladder are somewhat similar to those in cystitis, in some cases, as stone in the bladder causes some irritation of the organ, and in so far would, of course, produce cystitis. In other cases, there is little pain, but the urine is obstructed in its flow, passing freely in a good stream for a moment or two, and then is suddenly arrested while the bladder is still distended. This is caused from the stone being forced against the meatus urinarius internus, so as to suddenly and completely close the orifice.

Diagnosis.

To make a positive diagnosis, we fill the bladder with water, after placing the patient upon her back with her thighs flexed upon the abdomen, the knees separated, and the patient placed under the influence of an anæsthetic, we pass into the bladder a steel silver-plated sound, when we may hear the click as the sound hits against the calculus. Placing the index and middle fingers of the left hand in the vagina and pressing against the bladder, may, in some instances, greatly facilitate the exploration. The distention of the bladder with water previous to the examination is important, as otherwise the stone might be enveloped in the folds of a collapsed bladder, and we would fail to find it. The shortness of the urethra in women and the opportunity to press the bladder with the fingers in the vagina, make the diagnosis of stone in the female bladder comparatively easy.

Treatment.

The first thing in the treatment of stone in the bladder is to correct the secretions and excretions, and secure healthy digestion and assimilation; otherwise, if the calculus was removed, others would form in many cases. *Citric acid* is perhaps most frequently indicated. Sometimes the urine may be changed, when chemically too acid, by the administration of *alkalies*, and when the urine is *alkaline* by giving *acids*.

In some cases, where there is an excessive *acid* reaction in the urine, *acids* are beneficial in correcting the secretions ; and, secondarily, are useful in treatment. It is mainly in those districts of country where lime water is used for ordinary drinking and culinary purposes that acids have been found most beneficial in cases of stone or gravel (for gravel is very similar to stone in its etiology, the term stone being applied to those urinary calculi which are too large to pass by the

urethra; and the term gravel is applied to small stones which pass by the urethra readily).

The removal of stone from the bladder in women is not so difficult as in men, owing to the shortness of the urethra, and also owing to the great distension which the urethra in the female is capable of enduring. This facilitates the use of instruments for crushing the stone, and sometimes admits of its removal entire through this canal. This is the oldest method of removing stone, and in most cases the best. Some skill is needed in the manipulation, but no more, I think, than is required in other operations. The instrument used to crush stone in the bladder is called a lithotriptor. (See Plate VIII.)

The operation for the removal of stone in this way by crushing is called lithrotrity. The operation through the vagina is called lithotomy. Extracting the stone without crushing it through the urethra is called lithectasy. In performing the operation of lithectasy it is generally necessary to first dilate the urethra. This is accomplished with a sponge tent smeared with *Belladonna ointment.* The *Bell. ointment* takes away much of the sensitiveness of the parts, and is no impediment to the expansion of the sponge. Or, we may dilate the urethra with a three-bladed dilator, which is rapidly screwed up while the patient is under the influence of chloroform; or, a two-bladed dilator will do very well. (See forceps, Plate VIII.)

Incision.—In some cases, where we find the urethra hard to dilate, we may aid the dilatation by incising the mucous and muscular coats of the urethra. The incision should be made downwards and outwards. We may safely dilate the urethra to the size of the index finger, and extract a stone about three fourths of an inch in diameter.

The size of the stone may be determined by the distance the handles of the forceps are separated when seizing it, having measured their expansion previous to being intro-

duced, while seizing different sized objects. In seizing the stone care must be used to move it from side to side, to be sure we have not taken hold of a fold of the bladder as well as the stone. In extracting the stone we should use a rotary motion and not use direct traction.

Should we find we have mistaken the size of the stone, and we are unable to extract it entire, we should let go with the forceps and introduce the lithotriptor, crush the stone, and wash the crushed pieces out of the bladder; and, in case we find there are some pieces too large to be washed out we may extract them with the forceps, or again introduce the lithotriptor and crush again. In using the lithotriptor it is necessary to take great care not to seize a fold of the bladder and crush that as well as the stone.

A reversible catheter, of large size (see page 457), with both ends open fully, may be used to wash out the *débris*, pumping tepid soaped water into one tube and letting it flow out through the other. Dr. H. J. Bigelow* has invented an evacuating apparatus which fulfills all the requirements admirably. The apparatus consists of an elastic bulb with a glass tube at one end for receiving the fragments of stone, and at the other an elastic tube communicating with a large canula introduced into the bladder through the urethra. The bulb is filled with tepid soaped water, by pressing out all the air, and then placing the end of the tube in a basin of water (resting on a chair or table, and with the bulb on the floor). We then insert the canula, compress the bulb, and force the water into the bladder; then relax the pressure, and the fluid with some particles of the stone will pass out into the bulb. The particles of stone now gravitate into the glass tube below. We may now press upon the bulb and force the water again into the bladder, and again it is allowed to pass out into the bulb with other pieces of the stone, and so on. We are able to see in the glass tube how much of crushed stone

*Amer. Jour. Med. Sciences, January, 1878.

we have washed out, and also observe when no more is discharged.

Lithotomy.

There are two approved methods of performing this operation, the vaginal and the supra-pubic, the latter being resorted to in the male for the removal of stones of such extremely large size that they could not be removed by the perineal operation or by lithotrity.

In women the ease of diagnosis of urinary calculi, together with the great dilatability of the urethra, will make it very seldom necessary to perform the supra-pubic operation; besides, a very large stone may be removed by the vaginal method; much larger than could be removed entire by the perineum in the male.

If for any reason the supra-pubic operation is advisable in a case where we have atresia of the vagina as a complication, or for other reasons, we make an incision about two and a half inches in length in the median line, commencing at the pubis, the bladder being distended with tepid water previously injected and a sound introduced by an assistant, or at least retained by him, and the urethra compressed to aid in the retention of the water. The sound carried up above the pubis will serve as an index to the point at which we should incise the bladder, having previously divided the attachment of the pyramidales and pushing upward the peritonæum, and having the dissection carried through the cellular tissue. After a small opening is made in the bladder, we next enlarge it towards its neck, pass in the lithotomy forceps, seize the stone and extract it. While doing this it is well to have an assistant seize the edges of the bladder with small forceps on either side, and lift them a little out of the wound.

After extracting the stone we should pass in the index finger and feel for more calculi. Several calculi of large size are sometimes found in the bladder at the same time,

and the oversight would be very mortifying, if we fail to extract them all at one operation.

After extracting all the calculi, we draw off the water with the self-retaining catheter, which must be left in the urethra to allow the urine to drain away, and the use of a catheter not over three inches in length is most desirable (see Plate No. XIII), as, if it is longer, it might pass through the incision and fail entirely to perform the intended service for which it is retained. Placing about two sutures of silver wire in the walls of the bladder I consider preferable to leaving it open. One end of the suture wire may be left long, after the wire is twisted, and be brought out of the lower portion of the external incision. After four or five days we can pass in sharp-pointed, strong scissors, and by a little care find the loop of the suture, cut it and withdraw the entire wire. After taking the sutures, as suggested, in the bladder, we close the external opening with interrupted suture and adhesive plaster, letting the plaster be applied first in strips about six inches long between the sutures, and then shorter ones over and between these, so as to completely cover the cut. In this way the short strips may be lifted up on the third day, the sutures removed, and the plasters reapplied.

The vaginal method is easy of performance. A straight grooved staff is first passed into the bladder, the patient lying upon her side with the vagina distended with Sims' improved speculum. We then incise the anterior wall of the vagina and posterior wall of the bladder with a sharp-pointed scalpel at a point just above the meatus urinarius internus, pressing the point of the scalpel through the tissues till it reaches the groove in the staff, holding the edge of the scalpel away from the director, then slitting the tissues upwards on the director an inch or an inch and a half, according to the size of the stone to be removed. We now withdraw the staff, pass the index finger of the left hand through the incision, then pass the forceps along the side of the

finger, and remove the stone, taking care after seizing it with the forceps, that we have not taken hold of a fold of the bladder as well. We may assure ourselves of this, by moving the forceps around in the bladder after we have grasped the stone, and making sure that we have it free in the forceps. If there is much hemorrhage, styptics must be used—first trying cold water, then ice, and if these are not efficient, we use the *liquid persulphate* of *iron*. After extracting one stone, we must never forget to examine for others, and remove them also, if present.

A catheter is to be now placed in the urethra and retained, and the incision closed by interrupted sutures, of silver wire or silk, placed very close together—I think every quarter of an inch not too near—setting the stitches deeply enough to include all the tissues down to the walls of the bladder; and I prefer that two of them include the cystic walls also (it being very desirable to obtain union of all the incised tissues by first intention). The two sutures which we take in the cystic walls should be placed first, and the ends cut longer than the smaller sutures, so that they may be recognized and sooner removed than the others. These longer and deeper sutures should be removed on the fourth day, while the smaller ones may remain nine or ten days.

Foreign bodies of almost any kind, like hair-pins, pieces of a stick or straw, when introduced into the bladder produce irritation somewhat similar to a calculus. They soon become encrusted with *phosphatic* material, and serve as the nuclei for calculi, as I have mentioned before; hence it is necessary to remove them soon, which can usually be done with the forceps (by exercising some patience and skill).

Calculus in the Ureter.

Calculi have sometimes lodged in the ureters, and when of such a shape as to entirely block up the passage they

produce more serious consequences than when they are situated in the bladder. There is more backache, owing to the distension of the kidney with urine, which is secreted, but not expelled. There is a sense of weight and great tenderness over the kidney and abdomen, conjoined with the symptoms present in *cystic calculi.*

In these cases we may detect the stone with the sound at one time and utterly fail at another, on account of its projecting into the bladder at one time and not at another. The operation for their removal is similar to that just mentioned for ordinary lithotomy. It will be seen at once that lithrotrity is not applicable in these cases, as the lithotrite could not be applied while the calculus was lodged in the ureter.

Treatment after the Operation.

After the operation for the removal of stone has been performed, by either method, perfect quiet in bed should be insisted upon. After lithotomy the patient should continually lie upon the side—for four or five days at least—after lithotrity the position in bed is immaterial. After placing the patient in bed, *Arnica* 3^{x} should be given every hour for two or three days, unless the patient is asleep. If the pulse rises, and there is evidence of inflammatory action, *Aconite* should be given without delay. The patient should partake of the mildest nourishment for two or three days, after which, if no fever is manifested, more substantial food may be taken.

Remedies for Stone in the Bladder, Gravel, etc.

Aconite, *Arnica*, *Ars. alb.*, *Bell.*, *Puls.*, *Canth.*, *Dulc.*, *Can. sat.*, *Nux v.*, *Opii.*, *Phos.*, *Phos. ac.*, *Cal. carb.*, *Lycopodium*, *Sulph.*, *Kali carb.*, etc., are sometimes useful.

Aconite is indicated where there is restlessness, with fear, frequent desire to urinate, fever, thirst, nausea, etc.

Arnica is indicated where the gravel passes with pain,

and is followed by bloody urine, burning in the urethra after the bloody urine has passed, etc.

Ars. Alb. is indicated where there is alternating heat and cold, thirst, suppression of urine, etc; nausea; great weakness; aching in the lower limbs, or over the entire body; tongue coated white.

Bell.—In suppression and retention of urine; pain in the bladder; urging to urinate; pain in the back; flushed face; dullness of the brain; dilatation of the pupils; fever; dizziness, etc.

Puls.—From effects of cold at menstrual period, causing amenorrhœa; suppression of urine; painful micturition; mucus in the urine, with *leucorrhœa,* indigestion, loss of appetite, etc.

Cantharides.—In burning in the urethra; constant urging to urinate; pain in the back of the head and neck.

Dulc.—Urine turbid; burning in the urethra; strangury; constant desire to urinate; symptoms worse in damp weather.

Can. Sativa.—Sharp pains in urethra; urine scanty and passed with burning pain; stitches in the urethra; mucus in the urine.

Nux.—Painful urging to urinate; tenacious mucus in the urine; constipation, hemorrhoids, indigestion, etc.

Opium.—Urine scanty, brown, or cloudy; retention of urine; dulness of intellect; face red and hot; constipation; cold sweat on the face and head.

Cal. Carb.—Urine offensive, dark colored; profuse diaphoresis; anxiety, with palpitation; vertigo; deposit of earthy salts in the urine; weakness; in women of fair complexion.

Lycopodium.—Gravel, with nephritis, or catarrh of the bladder; symptoms aggravated in the afternoon; red sand in the urine; flatulence, with pain in the abdomen.

Sulph.—Worse after midnight; burning in the urethra; urine copious, offensive, excoriating; violent itching in the rectum; despondent mood; fretfulness, etc.

CHAPTER XLII.

SYMPATHETIC EFFECTS OF DISEASES OF THE UTERUS AND ITS APPENDAGES.

THERE are certain affections that are dependent upon and caused by morbid conditions of the uterus and its appendages, which are not properly considered hysterical, and deserve special mention. It has been my lot to see many cases of this character in my experience while *resident* physician of the *city hospital* of Chicago in 1859 and 1860, and since that in an extensive private practice, largely consisting of chronic ailments of women, as well as observations in consultation with other physicians, and in observing cases in hospitals in NEW YORK, PHILADELPHIA, ST. LOUIS, NEW ORLEANS, and CINCINNATI.

I am convinced that many sympathetic affections are mistaken for special diseases, and the treatment of which is unsuccessful from a failure to discover the real ailment and remove the difficulty which exists in the uterus or appendages. Patients in these cases will sometimes give no intimation that they have any disease or difficulty of the uterus, either organic or functional; and it is only by comparison of symptoms, the history of the case, careful examination of the patient, and differential diagnosis, as well as by much study and patience, that we are enabled to arrive at a correct diagnosis in this class of cases.

In some instances the patient will assert and insist that the uterine functions are normal, and that they are sexually perfectly healthy. This is sometimes owing to the modesty of the patient, and sometimes they do honestly believe they are well in this respect. They complain of want of appetite,

nausea, biliousness, constipation, headache, cold hands and feet, pain in the side, palpitation of the heart, amaurosis, painful or frequent micturition, sciatica, pain in the hip or ilio-sacral articulation, chilliness, hot flashes, pain in the top of head or occiput, pain in knee, ringing in the ears, languor, inability to swallow hard substances (caused from spasmodic irritation of the œsophagus, this being produced from uterine disease), sensation of some foreign substance (like a fish bone or pin) in the throat, cough, congestion of the lungs, liver, or other organs, anæmia, chlorosis, pruritus vulvæ, etc. We may also have anæsthesia or hyperæsthesia, paraplegia or hemiplegia, as sympathetic affections.

When any or several of these symptoms are present in a case before us, and we can not find other reasonable explanation, we may look for the cause in the uterus or its appendages.

It may be either organic or functional, the result of inflammation or displacement of the uterus, of tumors of uterus or ovaries, or even of an arrest of normal action, as seen in amenorrhœa, the peculiarity of these cases being, that in many of them they refer no pain directly to the parts or organs primarily affected.

As I have mentioned under the heads of "inflammation," "amenorrhœa," "displacements," etc., we have these symptoms complained of sometimes; but what I wish to impress upon the student's mind is, the fact that we may have these symptoms as a result of uterine disease, and have no suggestion from the patient of any uterine difficulty whatever; and many times when inquiry is made, we are rather abruptly told that they are all well in this respect, intimating by voice and manner, at least, that they feel we might better have omitted the question.

Years of experience will cause us to be persistent in ascertaining the true cause of these complaints; and especially so when their history shows them to be chronic, and

that they have been subjected to much treatment without relief—the treatment I refer to being directed to the relief of the particular symptoms complained of, and not directed to the relief of the real cause of these symptoms. I believe I have seen patients complaining of all the symptoms above enumerated, which were caused by uterine disease or displacement, while the patient believed herself healthy in this regard. I will mention as examples two or three cases.

In *December*, 1863, I was called to see Mrs. R., aged about forty years, widow of a prominent judge of Illinois, robust in appearance, light complexion, nervo-sanguine temperament. She complained of pain in one knee, and of inability to walk. She stated that she had been suffering for two years in the same way, and had had the best allopathic physicians in Chicago, who had leeched and blistered the knee, and she showed me a large iron splint they had recently used to straighten the limb, and again flex it by means of a screw. (I still have in my possession the apparatus as a curiosity.)

On examination of the knee I determined that there was no trouble here, and I judged that the trouble was from reflex action produced from some trouble with the womb, and so stated to my patient, who rather indignantly replied, "I am perfectly healthy in that respect." I replied that if this was so, then I knew nothing of her case.

I prescribed temporarily, and left her. In about two weeks she sent for me again, and stated that as I took an entirely different view of her case from her other physicians, she had concluded to employ me, and let me see if I was correct in my diagnosis.

I accordingly proceeded to make a thorough examination of the uterus, and found it as large as at three months in pregnancy, and retro-verted. On introducing the sound, which I did without hesitation (as her difficulty had been for two years troubling her with equal severity), I

found a single polypus. I restored the position of the uterus, removed the polypus, and had the satisfaction of seeing her walk in six weeks without the aid of crutches or cane. I used no local treatment to the knee, no electricity to the limb, no internal medication. I accidentally met her at the Southern Hotel in St. Louis in 1875, and she assured me she had had no trouble in walking since I had removed the tumor, twelve years before. She had never had pain in the pelvis, had menstruated regularly, and not too profusely.

Such a case will not often be seen, but it goes to demonstrate the ideas I am trying to impress, that we may have serious uterine difficulties and have no complaint of pain in the organ, no interruption or excess of menstruation, and still have serious symptoms in other parts. Why we had no disturbance of menstruation in this case I am unable to say. Her strength of general system by inheritance and education was far above the average, and may have been a reason why she suffered so little in general health; and her decided assertion that she was perfectly well in all respects regarding her sexual organs, would have deterred most physicians from insisting upon an examination of them; still, the result proved its necessity.

Case Second, *April* 7, 1876.—Miss N., aged about thirty years, native of Illinois, was brought to me by her sister (whom I had cured the year previously of hemiplegia and loss of sight in one eye by restoring a retro-verted uterus), who stated to me that she had persuaded her sister to come to me from a distant city, that I might try to relieve her, though she had been treated by seven different physicians during the past four years, but that her trouble grew worse instead of better. The general appearance of my patient was good, excepting an inclination to be morose, and I caught, occasionally, the wild stare of the eye seen in the insane. She had an idea that she could not swallow any hard or

solid food, and had subsisted upon milk, soup, and the like. She insisted that there was a fish-bone lodged in her throat so high up she was angry that no one could see it. In other respects she seemed to be in good health. Her menstruation was regular and normal.

Although I at once suspected her complaints to be sympathetic, I concluded to make a thorough examination of the throat and œsophagus, which I did, and found no obstruction or difficulty. I gave some medicine to indicate my sincerity in my efforts to relieve her, and as an excuse that in the event of its failure to relieve her, it would be necessary to make a vaginal examination. Of course, the medicine failed; and with the combined persuasions of her sister and my own, she consented to a vaginal examination, which revealed a prolapse of the uterus almost complete. I restored and maintained the organ *in situ*, and in three days her difficulty of swallowing solid food had vanished. I attended to the case a little for about six weeks, when I found the uterus remained in position, and I dismissed her. I learned a year or more afterwards from her sister that she was still well. This patient might have deceived us in saying she had no pain of any kind, owing to her modesty. But I relate the case simply to show that we sometimes must investigate for ourselves in these obscure cases.

These cases may serve as examples of reflex or sympathetic nerve action, though in the first case it might be claimed as direct nerve irritation from pressure of the enlarged and retro-verted uterus upon the nerves and ganglia in the pelvis; but why the manifestation in the knee?

We speak of reflex and sympathetic nerve action. They are terms which signify a *theory* of nerve action, but are as incomprehensible as the term electrical current. We may study the phenomena of nerve action, and theorize upon them, but the whole matter is little understood. I am mortified in this, as in other things, at the little known by the pro-

fession. Malaria, for instance; how often mentioned and blamed for its effects, but how little understood, never having been discovered by chemical analysis. There is still a wide field for investigation and discovery in physiology, pathology, and therapeutics, though in therapeutics Hahnemann has discovered a law for the selection of remedies, which has already been of great benefit to mankind, and its advantages and reliability as a guide in treatment are bound to be universally acknowledged. Still, in this field we need more careful provings of some remedies.

Treatment.

In regard to the treatment of these various sympathetic affections, it may be readily inferred that no treatment is likely to avail except that which is directed to the removal of the cause, *i. e.*, no other treatment is likely to be more than palliative; and he who can the most keenly discern the cause of these ailments will be the most successful in relieving them.

One word just here, which I feel should be said in all kindness, and with due respect to the average practitioner. We feel that the habit which some have of denominating those ailments which they fail to comprehend nervous or hysterical, and making no effort for their removal, is cruel and unbecoming the profession we represent. If after every investigation no lesion or disease be discovered in the physical frame, we may have to resort to the theory of nerve derangement, either functional or organic; still these poor sufferers demand, and humanity demands, the kindest and most considerate treatment at our hands.

I might go into the detail of all the several sympathetic ailments I have mentioned, and many more; but the treatment of all must have reference to the cause, and it is needless to go into the detail of symptoms, which may better be studied in our works on therapeutics, in relation to proper remedies.

I have omitted to mention the mental affections produced or aggravated by uterine diseases. Some of them come under the head of Hysteria, others that of Insanity. Under Hysteria, and Puerperal Mania, may be found more extended remarks on the influence of uterine diseases upon the brain.

Whether or not it is possible that uterine diseases should produce insanity, is to-day somewhat in dispute. We are inclined to the opinion that they may, but whether it is a direct or reflex action, or in what way nerve irritation produces insanity, I will not attempt to explain further than to suggest that the pain experienced in some of these affections tends to exhaustion of nerve force as well as muscular strength, that the anæmic condition produced by the derangements of the functions of digestion, assimilation, and excretion (caused from uterine disease or otherwise) may seriously affect the brain substance, as well as tend to produce disease of its meninges. We are still, as a profession, greatly in the dark in relation to the pathological condition in insanity, and till we know more of it we are neither able to assert or deny theories of its causation. Still we see no good reason why diseases of the uterus may not cause insanity. I think we have evidence that they do, in the fact of the co-existence of insanity and uterine disease, and the fact that the mental aberrations disappear many times when the uterine difficulties are removed. Still this might have been a coincidence; but there is no more reason to call this a coincidence than in many other diseases where the symptoms disappear when the uterine difficulty is cured.

It seems to me in entire accord with the economy of nature that the brain should be affected by uterine disease, from the fact of the known influence of the brain upon gestation and the fœtus itself as well, all the processes of nature, all glandular and muscular action being dependent upon nerve power.

Hence it is reasonable to expect that disease or displace-

ment of the generative organs, especially the uterus, might reflect an irritation back upon the great nerve centers. Hence we suggest that in mental derangements in women, we be very careful to ascertain if there is any uterine disease or deviation which might be a cause of the disturbance; if so, we will do well to rectify it in the commencement, if possible. That the fretful nature of some women is sometimes due to uterine disease, we may be sure; but as fretfulness is not classified as a disease, we will pass it by with the remark that if the symptom seems to need a remedy, we will keep in mind the possibility of its being caused from uterine disease.

Before closing this chapter, I will call attention to a class of patients who are more of a wonder to me than those we have been considering. I refer to those who have complete procidentia, tumors of the uterus, etc., etc., and suffer no inconvenience worth mentioning. I know a lady now who has a polypus as large as a small hen's egg attached by a pedicle to the mouth of the womb, and she suffers no inconvenience. Another had a cystic tumor of the vagina which gave her no trouble, except as it interfered with sexual congress; several had complete procidentia who were perfectly well, so far as their feelings would indicate. So we see that conditions which will produce serious symptoms in one may not in another. Therefore we would gauge the necessity of treatment by the effects produced, and not by the actual condition present. After awhile the system seems to become tolerant of abnormal conditions, and they produce little trouble, in some instances, as I have mentioned.

Electricity is a valuable agent, used in mild current, to tone up and strengthen the whole system, and especially the weakness consequent upon uterine disease. Mildness of the current, my experience confirms, is the most useful and desirable. Shocks are in my judgment injurious, the same as large allopathic doses, or as too low a potency of the indicated

remedy might be, and are to be avoided. The electro-magnetic current I prefer. It is so generally applicable to weakness and loss of functional strength, I do not think it necessary to specify the minutiæ of its applicability in these cases.

Remedies.

The remedies must be chosen from the totality of the symptoms, corresponding with their pathogenesis. They will be found in the cerebral and spinal groups. Among them the most useful are *Aconite*, *Bell.*, *Verat. viride*, *Camph.*, *Can. ind.*, *Hyosc.*, *Opi.*, *Conium*, *Gelsem.*, *Ignatia*, *Nux*, *Secale*, *Cimicif.*, *Plat.*, *Puls.*, *Caul.*, *Colcynth.*, etc. They must be selected according to the peculiar correspondence of the symptoms in each case to the homœopathic pathogenesis of the drug.

If we should enter into the description of all the symptoms which might arise, and name all the remedies which might possibly be applicable, this work would properly be termed a Materia Medica. We expect that the student will study the pathogenesis of remedies from works on Materia Medica, Symptomatology, etc.; and understand, that when we name a remedy, we mean that it should be given in accordance with its homœopathic indications. It takes too much time and space to continually repeat the pathogenesis of each drug. By naming the remedies we have found indicated most frequently, the student has a guide to the study of the remedies which are likely to be required. I do not say that possible complications may not arise, requiring other remedies, which the practitioner will, of course, have the judgment to use in case they are demanded.

Hyperæsthesia.

Hyperæsthesia may be local, *i. e.*, confined to a small part of the body, or one side; or may affect the entire body, as a result of uterine disease. In this condition the part

affected exhibits no evidence of disease in itself, and its occurrence in connection with uterine disease or displacement, and its subsidence when such disease or displacement is cured, is evidence of its dependence upon the uterine trouble as a cause. Patients so affected are almost thrown into spasms from the slightest touch. A striking and common manifestation of this condition is found in the supersensitive condition of a small spot beneath the left breast in women affected with congestion, displacement, or inflammation of the uterus. It does not occur in every case of uterine disease; but I have never seen it exist without uterine disease; sometimes one side of the entire body is affected by this hyperæsthetic condition, and the opposite side and limbs remain of normal sensibility. I have seen this condition present as a result of both acute and chronic metritis.

Etiology and Pathology.

This condition of supersensitiveness of the affected part seems to depend upon an inflamed and supersensitive condition of the uterus. There may be in connection with this inflamed state some displacement or not. It sometimes occurs in connection with the sudden suppression of the menstruation, which also causes congestion and inflammation of the uterus. Onanism may also produce hyperæsthesia.

The irritation of the uterine nerves causes irritation of the spinal cord through continuity of nerve tissue. Why this irritation is communicated to one side and not the entire cord we are unable to explain. It is one of the mysteries of nature as yet unsolved. This irritation is communicated to the nerves given off from the side of the cord affected; and hence the hyperæsthesia of these nerves, which are distributed to the opposite side, as those familiar with anatomy will readily understand. This supersensitive condition is mainly exhibited in the extremely minute nerve filaments upon the surface distributed to the cuticle.

Where only a small part of the body is affected by this supersensitiveness we find a theoretical explanation in the sympathetic or ganglionic nervous system. This system is so complex that it has not as yet been well understood. We can do little more than observe its complicated and astounding phenomena, and be aware of the sources from which they originate.

This, however, is something. For at this point, and even before reaching it, scientists have to pause and acknowledge they can go no further. What does the astronomer do more than observe the motions of the various planets, and give names to the various constellations? Why the planets revolve in their regular orbits, and are sustained there, can he explain more than to say they do so in obedience to God's laws, or the laws of nature (in case he thinks himself so wise as to think it smart to discredit the existence of God)? What does the philosopher know of the laws of gravitation or cohesion? He knows from observation that these laws exist. Can he do more than name them, and describe their phenomena? Here we gain a little comfort in the fact that if we are quite ignorant of the exact action of the sympathetic nervous system, when we are able to note and appreciate their phenomena manifested through this system, we need not be ashamed in the presence of students of other departments of science, though we have accomplished much, very much, less than we desire.

Diagnosis.

The diagnosis of hyperæsthesia is quite easy. The patient usually gives us due and timely warning of the extreme pain she experiences from very slight pressure upon the affected part. This tenderness may be due to disease in the part, and it becomes our duty to ascertain if there is any disease of the portion of the body thus supersensitive. If so, of course, the diagnosis is made according to the local

affection. In case there is no local affection, no swelling, no redness, or heat of the part, we diagnose the case superficially as hyperæsthesia. We desire, however, that the student should understand that we do not consider hyperæsthesia a disease, but simply one symptom of some disease of the spinal cord, or of disease or displacement of the uterus. Hence, the diagnosis of the disease causing the hyperæsthesia is quite another thing. I mention disease of the cord in this connection simply to guard the student regarding the diagnosis of the cause operating to produce the hyperæsthesia, not to enter into the discussion of the diseases of the cord, further than to mention that some irritation is often produced in it, on account of uterine disease or displacement. The main affections of the cord the student will study in other works. We would have him always bear in mind that in the treatment of diseases of women spinal irritation, in slight or great degree, is a very common symptom, and that the symptom of hyperæsthesia is particularly a symptom of the uterine origin of the spinal irritation in these cases.

Prognosis.

The prognosis in cases of chronic hyperæsthesia (which term is applicable to those of many months' standing) should always be guarded. First, because the supersensitiveness may be so great that we may be precluded from making, at least for some time, any physical examination of the internal female genitalia, unless the use of anæsthetics be brought in to aid us, which we can not always use for fear of their effects upon an already shattered constitution.

Again, the difficulty of using the appropriate treatment, on account of the hyperæsthesia, and on account of the friends of the patient failing to appreciate the nature of the case, and the necessity of uterine treatment, makes the prognosis less hopeful.

Again, the prognosis should be guarded, on account of the

possible existence of *cellular*, *ovarian*, or uterine irritation in the case, which we may at first overlook.

Treatment.

In some cases *Hyoscyamus*, *Bell.*, *Asafœtida*, *Puls.*, or *Macrotis* will give prompt relief if used according to their homœopathic indications. The warm full bath, taken daily, is of some service in about all cases, though we would not claim it as sufficient to rely upon entirely in any case. The onanist should receive a liberal supply of *Brom.* in low attenuation. As soon as possible we should ascertain if there be any displacement of the uterus, and if so, try to rectify it. If there is amenorrhœa, menorrhagia, metritis, cellulitis, ovaritis, or other disease in the pelvis these diseases should be treated as well as possible, according to suggestions given under their appropriate heads.

Paralysis.

PARAPLEGIA AND HEMIPLEGIA.

Paraplegia is used to designate a condition of paralysis of a part of the body. It may be large or small in extent, affecting simply the muscles of one side of the face, or one or both of the lower limbs.

Hemiplegia is a term applied to a paralysis of one-half of the body and one arm and one of the lower extremities corresponding to the half of the body paralyzed. We do not find the arm upon one side and the lower limb of the opposite side simultaneously affected. Sometimes the muscles of the face are affected, and sometimes not. When affected they sometimes correspond to the side of the body paralyzed, and sometimes the opposite. In some instances sensation is perfect, and the power of motion is lost, and *vice versa;* in others, both sensation and motion are lost. These attacks usually come on suddenly without premonition.

Etiology and Pathology.

These attacks result from apoplexy, softening, or pressure upon the substance of the spinal cord, medulla oblongata or brain, and from sympathetic action, or irritation in uterine disease. It is only the latter cause which I desire to discuss in this volume. The process is somewhat similar to that which is present in the production of hyperæsthesia, which I have already mentioned, with this difference, that while in hyperæsthesia there is irritation sufficient to cause tenderness of the nerve only, in paralysis there is irritation sufficient to cause some effusion under the membranes of the cord, and consequent pressure is exerted sufficiently to interfere with motion, or both motion and sensation. Why one side is affected, and not both, is not easy to demonstrate. We can not explain this, any more than we can the periodicity of intermittents. We simply observe that it is so. We have to acknowledge that there is a large field before us in the discovery of nerve action, which is at present almost entirely in darkness to our short-sighted vision. Sudden suppression of the menstruation, or its delayed appearance from taking cold, I have seen develop hemiplegia, which lasted about two weeks, till the menses came on, and the inflammation of the womb had subsided.

Diagnosis.

We will suspect paraplegia or hemiplegia (from sympathy with uterine disease), when we find a paralysis of a part of the body; and the history of the case excludes the probability of its being caused from apoplexy; and an effusion of blood beneath the membranes of a part of the cord, or *medulla oblongata;* or of its being caused by softening of the nerve substance of the cord itself. We are justified in making further examination to discover if there is any uterine inflammation or displacement in these cases. We may find both—

quite certainly inflammation. Pain in the pelvis, and tenderness over the lower portion of the abdomen, with some fever, and a wiry pulse, which is much more rapid than normal, will usually be found. Often the attack is ushered in by a distinct chill. There may, or may not, be some incoherency of speech. Sometimes there is a hysterical condition in connection with these cases. This is mentioned by Prof. Flint as "Hysterical Paralysis." Hysterical paralysis is transient, passing off very soon; while paraplegia or hemiplegia, caused from sympathy with uterine disease, continues for weeks, or even months in some instances.

Treatment.

In the first place, attention must be given to treating the condition upon which the paralysis depends, and not to the paralysis itself; *i. e.*, let other symptoms be considered mostly in the selection of remedies. In cases of sudden cold with chill, *Gelsem.*, or *Aconite* in low dilution is usually indicated. Where chilliness and fever alternate every few minutes, or occur at the same time with thirst and nausea, *Ars. alb.* is the remedy. After the active inflammatory symptoms have subsided, *Puls.*, *Bell.*, or *Macrotine* is usually indicated. In some cases, where there are sharp pains, *Bry.* or *Cimicif.* is indicated. *Nux*, *China*, *Rhus*, *Baptisia*, etc., may be indicated later.

Locally the warm sitz or foot bath may be used, or the patient may at once be put into a warm pack. To give a warm pack, spread a pair of flannel blankets upon the bed, then wring a sheet out of very warm water and spread over the blankets; now place the patient, divested of all her clothing, upon the sheet, and wrap the hot, wet sheet first snugly around her, and then envelop her completely in the blankets, pinning them tightly around the neck, leaving the arms alongside the body wrapped in the sheet and blankets. This pack usually causes profuse perspiration, and the patient

may remain in it three or four hours, when she should be taken out and thoroughly rubbed with dry towels and replaced in her clothing, having the temperature of the room up to about 80° for a time, though the air should be fresh by the admission of out-door atmosphere indirectly. The temperature of the room may now be allowed to go down to 68° or 70°. During the time the patient is in the pack, she may drink all the cool water she may desire.

On general principles the inflammation of the uterus or the displacements of the organ should be treated as in other cases where they occur. The hemiplegia or paraplegia will disappear as the uterine difficulty is removed.

INDIGESTION, TYMPANITES, TORPID ACTION OF THE LIVER AND KIDNEYS AS SYMPATHETIC AFFECTIONS FROM UTERINE DISEASE.

Imperfect digestion is one of the most frequent sympathetic affections of uterine disease. It very commonly results from suppression of the menstruation, from dysmenorrhœa, menorrhagia, displacement of the uterus, or inflammation of the uterus in either form, etc., etc.

Tympanites is a result of this imperfect digestion. Torpid or deficient action of the liver and kidneys sometimes results from the prostration of the nerve strength, induced by uterine disease first affecting the digestion in many instances; in others, affecting the spinal cord primarily, producing debility of nerve power. This weakness of nerve power then causes torpidity of all glandular action, notably in the liver and often affecting the kidneys; this torpidity of the liver, causing constipation, and tending to prevent complete digestion, also thereby causes tympanites.

Treatment.

Nux, Col., Merc. iod., China, Ars. iod., Lycopodium, Puls., etc., are usually the indicated remedies; though in inflamma-

tory conditions of the uterus, *Aconite*, *Bell.*, *Gelsem*, *Verat. vir.*, *Ars. alb.*, *Bry.*, etc., may be required.

Nux is indicated (sometimes in alternation with *Col.*) for indigestion with constipation, loss of appetite, pains in the small of the back, etc.

Col. is indicated especially for sharp, twisting pains around the navel or in the colon, where there is gas in the intestines.

Merc. Iodid. is indicated by the lymphatic temperament, sallow complexion, coated tongue, with torpidity of the liver and kidneys.

China is indicated especially in case of menorrhagia, with debility, loss of appetite, etc.

Ars. Iodid. is indicated in the scrofulous diathesis, with loss of strength, insufficient flow of urine, with headache, indigestion, etc.

Puls. is indicated by loss of appetite, with amenorrhœa or dysmenorrhœa, headache, nausea, etc.

Lycopodium is indicated in constipation, with distension of the stomach after eating, etc.

Aconite is indicated when there is tenderness of the uterus or stomach, loss of appetite, inability to sleep quietly, fever, thirst, etc.

Ars. Alb. is indicated by pains over the whole body, suppression of urine, thirst, alternate heat and cold, loss of appetite, etc.

Bell. is indicated when there is tenderness of the uterus or ovaries, dull pain in the head, especially over the eyes, sense of weight in the pelvis, insufficient flow of urine, flushed face, tenderness over the kidneys, etc.

Gelsem. is indicated by a tendency to congestion in any part, loss of appetite alternating with great desire for food, thirst, with alternate dry and moist skin.

Verat. Vir. is indicated where there is tenderness over

the entire abdomen, pain in the spinal cord, fever, thirst, pain in the stomach, etc.

Bry. is indicated for constipation with mucous discharges from the bowels, vagina, etc., and in case of indigestion with sharp stitches in the side or head, tenderness of the scalp, sharp pains in the ovaries, pains in the limbs or back of a darting character.

Of course, the most prominent indication is to cure the uterine trouble upon which these diseases depend.

CHAPTER XLIII.

PUDENDAL HEMORRHAGE—PUDENDAL HÆMATOCELE—THROMBUS—RUPTURE OF THE BULBS OF THE VESTIBULE.

Both pudendal hemorrhage and pudendal hæmatocele are of rare occurrence. Fatal cases have, however, been known. Simpson* records several cases where from slight rupture of one labium fatal hemorrhage resulted.

Etiology.

The causes of pudendal hemorrhage may be divided into predisposing and exciting. The predisposing cause is a varicose condition of the veins, which may be induced by pregnancy or a large pelvic tumor. The direct or exciting cause is usually external violence, though Prof. Simpson reports a case due to straining at stool.

External violence may be received by the labia in falling upon some hard object or by the breaking of a *pot de chambre* upon which the patient is sitting, or by receiving a blow which may cause an incised or punctured wound. When an incised or punctured wound is received, the hemorrhage may be free. When the external violence or muscular effort causes a rupture of the veins of the part the blood is infused into the tissues, and a pudendal hæmatocele is produced, or as some term it, a *Thrombus* is formed, which is a very good term, signifying a coagulation of blood.

The anatomy of the parts needs to be understood that we may appreciate the liability to these accidents in women. Around the vulva are situated a network of veins termed the *Bulbs of the Vestibule*, plexus of veins of the vestibule,

* Obstet. Works, Vol. I, p. 277, Amer. ed.

or pars intermedia. It is on account of the rupture of these veins around the vulva that the hemorrhage is so profuse in cases of accident to the labia or vulva. They may be accidentally ruptured in confinement from distension of the parts by the head of the child, or in the careless use of instruments in delivery.

Diagnosis.

The hemorrhage from the part in cases of incised or punctured wounds which penetrate deeply enough to injure the bulbs of the vestibule readily make the diagnosis clear.

In cases of Thrombus or pudendal hæmatocele a sense of fullness, soreness, etc., is complained of in the labia, and on physical examination a tumor is felt, varying in size from a walnut to an orange, near the vulva and distending the labia. If recent, the tumor feels soft or semi-solid. If several weeks have elapsed, the tumor is rather solid in its feel, unless suppuration has taken place, in which case the feel is fluctuating, accompanied with tenderness in the part, on pressure.

Differential Diagnosis.

Thrombus of the labia or pudendal hæmatocele is liable to be confounded with

Abscess of the Labia,
Labial Hernia,
Inflammation of the Labia,
Œdema of the Labia, etc.

In abscess of the labia there must be a preceding history of inflammation of the parts—heat, tenderness, swelling, etc.

In labial hernia, gurgling in the bowel, which is protruded, the possibility of its replacement and its becoming smaller or entirely disappearing after lying down several hours, distinguishes it from pudendal hæmatocele.

In inflammation of the labia usually both are affected, and the swelling is more uniform, the tenderness and heat much greater than in thrombus or pudendal hæmatocele.

In Œdema of the labia, both are usually affected. The entire labia are thickened and puffy, and there is no circumscribed tumor as there is in pudendal hæmatocele.

Prognosis.

If the effusion of sanguineous fluid is small, it may disappear spontaneously by absorption. When the effusion is great, there is a liability of the formation of a labial abscess, and purulent infection may be feared, if the abscess is not freely evacuated. Should there be a tendency to the formation of an abscess some degree of inflammation in the part will precede the development of pus, and the general system may largely be affected from this process—chilliness, fever, etc., are liable to occur, together with nausea, constipation, etc. In some few cases the effused blood becomes encysted, and remains for years without producing any effect upon the general health, and when of small size may inconvenience the patient but little or none at all. In pudendal hemorrhage there is usually no very great difficulty in arresting the flow of blood.

Treatment.

Pudendal hemorrhage may usually be controlled by the application of cold and compression. Cold wet cloths or pieces of ice may be firmly applied to the part by means of a T bandage. If this proves ineffectual in controlling the hemorrhage the *Ferri Persulph.* may be used and pressure continued.

In pudendal hæmatocele of recent occurrence it is best to either freely evacuate the blood by incision and apply styptics, or evacuate with a trocar and inject through the canula some cold water, and apply compression as in a case of pudendal hemorrhage; and if hemorrhage continue after that, inject the liquid *Ferri Persulph.*, well diluted, and again apply the compress.

If an abscess forms either before or after the discharge

of the blood, the pus should be freely evacuated. Brush out the interior of the abscess with a *Solution of Iodine*, and apply pressure to cause adhesion of the walls of the abscess.

Thrombus or encysted blood-clot may be left to itself if small. When large, so as to greatly inconvenience the patient, it may be enucleated by first incising the mucous tissue, and peeling out the entire tumor, using the fingers and the handle of the scalpel for this purpose.

Remedies indicated in the hemorrhagic diathesis, or for varicose veins, may be given as indicated by homœopathic pathogenesis.

CHAPTER XLIV.

PUBERTY—AND THE CLIMACTERIC PERIOD.

The age of puberty in girls signifies the time when ovulation and menstruation commences, though they do not always occur simultaneously, ovulation having been known to occur before the establishment of menstruation, as shown by the occurrence of pregnancy before the appearance of the catamenia.

Just how frequently ovulation is established previous to menstruation it is impossible to determine (as but few are exposed to possible impregnation at this age). Still there are reasons to justify the belief that ovulation precedes the appearance of the menstrual flow for several months in very many cases. The most prominent of these reasons is the uneasiness, pain, bearing down in the pelvis, sometimes accompanied with backache and headache, nausea, etc., occurring at intervals, sometimes irregular at first, varying from four to six or eight weeks, gradually becoming more regular in their recurrence every four weeks, when the flow also appears. In some cases, however, the flow comes on without these premonitory symptoms, which are indicative of ovulation, either complete or imperfect.

The development of this function is a critical period in a woman's life, a period when her whole being seems to change. The romping, rude girl becomes the reserved, modest young lady. The breasts develop, the whole form becomes rounded and symmetrical. The mental changes are about as marked as the bodily. Thoughtfulness and comprehension of deep subjects are manifested in place of the careless thoughtlessness of childhood and want of understanding which usually mark the age of youth.

Generally this change takes place in girls at about the fourteenth or fifteenth year, sometimes coming on at twelve: or even at nine in warm climates, and is sometimes delayed till seventeen or eighteen years are attained in colder latitudes.

During the intervening period from the time the symptoms of commencing ovulation first appear to the time menstruation is regularly and fully established, various symptoms are manifested with which the student should become familiar; for, otherwise, he might be led into errors, both of diagnosis and treatment, in frequent instances, entailing upon himself much ridicule (especially on the part of the old ladies), which might be remembered and told of him for many years. I will not discuss here the various theories regarding menstruation and ovulation, as this belongs more particularly in the department of physiology; but will consider the manifestations which this change develops in the system. Dr. Emmet has occupied much space in giving tables indicating the age at which menstruation was developed, the barrenness or fruitfulness of each, etc., etc., which are of interest as statistics, but of no practical value; as the average age of puberty is shown to be fourteen years, with a variation from ten to twenty-three years of age in exceptional instances.

From all experience we learn that there is no exact time for the period of puberty to become established. It occurs earlier in warm climates than in cold; earlier in cities than in the country, owing to the greater excitation of the nervous system, often 'tis true at the expense of the muscular. Civilization and a luxurious mode of living doubtless tend to the early development of this function.

As ovulation commences the girl shows more irritability of temper, is peevish and fretful, restless and sometimes sullen; the appetite is capricious, longings for unnatural articles, like chalk, slate pencils, etc., are common. Disorders of digestion are often manifested, eruptions on the skin appear, notably in the form of pimples on the face. Pain and tender-

ness in the lower abdomen, with painful micturition are sometimes complained of, in connection with severe pains of a spasmodic character in the epigastrium or groins. These symptoms in the girl of suitable age, manifesting the somewhat rounded form, with the growth of hair upon the mons veneris, and having no menstruation, we may conclude are indicative of retarded development of the menstrual functions, and we should treat the case accordingly.

If neglected in this regard serious inflammation may supervene, and mental derangement is sometimes produced from this cause. Many cases of sterility, I believe, are due to the inflammation developed in these cases before the appearance of the catamenia, causing thickening of the investing membrane of the ovary, disease of the endometrium, contractions of the cervical canal, or occlusion of the Fallopian tubes.

THE CLIMACTERIC PERIOD, OR MENOPAUSE, ALSO TERMED "THE CHANGE" AND "L'AGE DE RETOUR."

These terms signify the time of cessation of the functions of menstruation and ovulation. This occurs about thirty years after the establishment of the function. Usually, when it commences early, it also terminates early, and *vice versa*. Exceptional cases occur where the term of menstrual activity is longer or shorter than thirty years.

At the climacteric period the changes in the system are as marked and critical as at the development of puberty, and the dangers to health and life are as great, though from different conditions; and the results are as serious, though of a different character.

The cessation of the menstrual flow is sometimes sudden, but most frequently it becomes irregular as to length of intervals in its recurrence, as well as to time of duration and quantity discharged. This irregularity is sometimes manifested for a year or more before the flow ceases.

Upon the first arrest, or suppression of the flow, the patient

usually suffers from the same train of symptoms as occur in cases of suppression from other causes earlier in life, but with less intensity; sometimes, however, for a few months, the arrest of the flow produces no serious disturbance in the system, and with a few women the change of life produces no effect whatever. These cases of exemption from disturbance in the system from cessation of menstruation are the exception; and it is usually found that a very considerable effect is produced, as might be expected, from the retention in the system of more sanguineous fluid than it has been accustomed to.

Generally, as a first effect of the menstrual cessation, the uterus may be felt congested and enlarged, and it is likely the ovaries and entire pelvic viscera are in a measure congested also. This congestion and over-fullness of the blood-vessels in the pelvis, especially in the uterus, causes irritation of the nerves of these parts, which is communicated to the spinal cord and sympathetic ganglia, which explains somewhat the manifestations of diseases peculiarly common at this epoch.

The train of symptoms sometimes developed includes almost if not all the sympathetic and hysterical manifestations to which women are liable, as well as the actual derangement of functions which do occur in these cases. As perhaps the most common result of this congestion, continuing for several months, we have profuse floodings, following several months of suppression. These floodings are in some cases very exhaustive to the system, and even dangerous to life.

The next most common disturbance in the system is derangement of digestion, causing pain, colic, heartburn, etc., etc., accompanied sometimes with diarrhœa, and sometimes with constipation. Backache, headache, neuralgia in various parts of the body, sciatica, etc., are very frequent at this period. This condition of congestion of the parts gradually

gives place to atrophy of the uterus and uterine organs. The congestion continues for a time, and may result in chronic inflammation of some part of the uterus or ovaries, and the consequent development of ovarian or uterine tumors; or we may have a profuse leucorrhœa, which is caused from this irritation of the organs, and which for a time seems to be vicarious of the regular catamenia. Epistaxis, hemorrhoids, etc., sometimes seem to relieve the system vicariously in recompense for the absence of menstruation.

The effect of the climacteric upon the mind is sometimes marked. The patient is taciturn, fretful, forgetful, easily angered, changeable, sometimes exhibiting various forms of mental derangement, at other times manifesting a childish disposition, exhibiting a great love for showy dress, and occasionally in widows causing an almost uncontrollable sexual passion, manifested in the most imprudent conduct and unblushing expression of a desire to marry, much to the mortification of friends and relatives. Sometimes the desire to bear a child in old age becomes so strong that she imagines herself pregnant. This condition is termed *pseudocyesis*, or false pregnancy. The increase of adipose tissue common at the climacteric period aids in the illusion, conjoined with the disorders of digestion so frequently present. The delusion is embraced as a sweet phantom, as an evidence of sexual vigor; and it is sometimes almost or quite impossible to disabuse her mind of her mistake. The cessation of menstruation, nausea, increase in size, as well as the movement of gas in the bowels (simulating movements of the fœtus), all tend to confirm her wish that pregnancy might exist.

Treatment of Conditions Arising at Puberty.

First, when the age and development of the patient indicate that puberty is reached, and there are present the various symptoms described, and there is no show of menstrual discharge, *Puls.*, *Macrotis*, *Bell.*, *Sepia*, *Aconite*, *Ars.*,

China, etc., should be studied. *Puls.* or *Macrotis* are indicated for the non-appearance of the menstruation without special symptoms for other remedies. *Bell.* is indicated for bearing down pains with tenderness of the epigastrium. *Sepia*, when the patient has a leucorrhœal discharge. *Aconite*, in case nervous symptoms predominate, with chilliness or fever. *Ars.* for nausea, complicated with hot flashes. *China* for weakness, trembling of the limbs, vertigo, etc.

Attention should be given to these cases regarding dress, to see that they wear sufficiently warm clothing about the feet and limbs. Warm foot baths, or the warm hip bath, may often be of service. A useful adjuvant is found also in the mustard plaster to the small of the back and epigastrium in case much pain is felt in these regions. Horseback exercise is often highly beneficial.

If after several months of trial of remedies the flow is not established and the symptoms are of a serious character, and the patient having reached an age somewhat advanced beyond that when the catamenia ordinarily appears, it is advisable to institute a sufficient physical examination to determine whether there is an imperforate hymen or an atresia of the vagina or cervix uteri, and, if so, to establish a normal condition. If the parts are found normal, we must wait and continue the use of remedies, and place the patient in favorable hygienic conditions. Sometimes going into company is good in these cases, calculating to divert the mind and restore equilibrium in the nerve forces. Cessation from hard mental labor is in some cases a necessity, as the excessive activity of the brain may so divert the nerve forces in the system as to cause atony of the genitalia, as mentioned in treating of "Vaginismus" and "Amenorrhœa."

Treatment of Disorders of the Climacteric.

For the condition of suppression of menstruation occurring in the married, we are debarred from very active measures

on account of the possibility of the existence of pregnancy. In cases where we are sure pregnancy does not exist, we may use remedies as we would in an ordinary suppression, as mentioned under the head of "Amenorrhœa," especially if the system seems to be suffering on this account. Generally *Aconite* or *Ars. alb.* will be indicated in these cases, as they usually suffer from congestion in some part of the body, if they suffer at all; *Ars.* being indicated if there is congestion without fever, or if the fever is of short duration, alternating with chilliness, thirst, restlessness, want of sleep, etc.; *Aconite* being indicated when the congestion merges into an inflammatory condition, with fever, dryness of the skin, etc. *Bryonia* or *Verat. vir.* may be indicated if the pulmonary symptoms are marked, showing congestion in the lungs. The warm foot bath with warm applications to the epigastrium and small of the back are calculated to aid in establishing the equilibrium of the nerve force and the circulation of the blood as well. Gastric symptoms, indigestion, constipation, etc., are to be treated as if arising from any other cause, with *Ipecac*, *Puls.*, *Nux*, *Sulph.*, etc.

Should uterine hemorrhage set in, and be excessive, the recumbent posture must be maintained, cool drinks must be given, and all stimulants avoided. The remedies are *Secale cor.*, *Nux*, *Ipecac*, *Aconite*, *Bell.*, *Trillium*, *Nit. ac.*, *China*, etc., choosing the one whose pathogenesis most closely resembles the case in hand. I have named remedies in the order in which I have found them most frequently indicated.

This class of patients should be treated with great consideration, not only on account of their difficulties, but on account of their age and the delicacy and solicitude the patient always feels regarding her condition at these times. She should not be disputed with or opposed more than it is impossible to avoid. Her idiosyncrasies should not be mentioned by her friends to others in her presence, as at this period the lady is often over sensitive about the good opin-

ion of her acquaintances, though she may pretend to ignore and despise the opinions of others, and does not like to think that old age is approaching. She does not like, therefore, to be told that this is the climacteric period with her.

It becomes the physician's duty to enjoin great care on her part to avoid taking cold; and exposure to damp, cold atmosphere, especially at night, as well as fatigue, should be avoided. My opinion is that often the menses disappear before the climacteric period is reached, on account of various causes independent of the natural cessation of ovulation and consequent stoppage of uterine activity; hence, it is the plan most conducive of good to our patient to keep up the function of menstruation as long as possible. In this way I think much of the tendency to the development of uterine tumors, cancer, phthisis, etc., is avoided by maintaining the function of regular menstruation as long as possible, and much of the liability to excessive hemorrhages is also avoided. We also have less development of nervous symptoms, digestive derangement, etc., if the function is maintained regularly to the utmost limit. When this is accomplished the system will suffer little from the absence of menstruation. The sexuality is, in a measure, lost; sexual passion is lost, or much weakened, and the uterus becomes atrophied; the vagina shrinks and becomes dry. Under these circumstances the only symptom likely to develop will be weakness, showing a loss of vitality as well as virility. In these circumstances *Nux*, *China*, *Ars.*, etc., are usually the indicated remedies.

CHAPTER XLV.

ATRESIA OF THE VAGINA, AND CERVIX UTERI—HÆMATOMETRA, ETC.

Closure of the vagina or cervix uteri may result from adhesive inflammation from cold or from traumatic lesion, or it may be congenital. In these cases of absence or atresia of the vagina the menstrual blood sometimes finds exit through the rectum and sometimes through the urethra.

In some of these cases, where the os uteri has opened into these canals, pregnancy has resulted when these canals have been used for copulation.* Generally, for some reason, the urethra is relaxed and greatly enlarged in cases of atresia of the vagina. Dr. Emmet† mentions the case of a young woman who, after being married several years without a menstrual flow, was found to have copulated with her distended urethra, and neither her husband or herself had suspected the true condition.

After opening up the vagina the urethra usually contracts to a normal size. The closure of the vagina must, of necessity, cause a retention of blood in the uterus; and this condition is called *hæmatometra*. In cases where vicarious menstruation is not otherwise established, sometimes hæmatemesis, hæmoptysis, or epistaxis seem to take the place of the catamenia and become vicarious menstruations; at other times hemorrhage from the rectum takes place as a vicarious menstruation, when there is no communication between the uterus and bowel.

The occlusion may exist as a transverse septum in the

*Barnes' Diseases of Women, page 203.

†Emmet's Prin. and Prac. of Gynæology, page 207.

vagina (see Fig. 47), or it may affect the lower portion only, or the os uteri externum or internum may be the seat of the occlusion, or it may affect the entire cervical canal. Either condition may develop hæmatometra, which will be situated above the location of the adhesion.

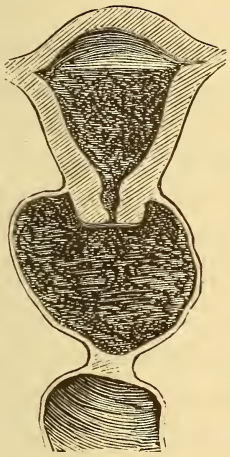


Fig. No. 47.
Atresia of the Vagina with Hæmatometra.

Professor Emmet* relates a case of double uterus and vagina with atresia of one of the vaginæ. (See Fig. 48.) He says: "Some years since I was consulted by a woman about nineteen years of age, who had never menstruated regularly, and wished relief from a sense of pressure and bearing down which had existed for several years. She was exceedingly nervous; I had great difficulty in completing a thorough examination, and was not a little puzzled to make out a diagnosis. To the left of the vagina was felt an accumulation of fluid extending as high as the finger could reach, and from the rectum an elastic and nearly globular body could be felt, closely attached to the uterus. After satisfying myself as to the position of the fluid and its connection with the uterus, I unfortunately suggested to introduce an exploring trocar, to ascertain the character of the accumulation. It seemed I had already lost my patient's confidence, from the length of time I had taken to form an opinion as to what her difficulty was, so that my proposition was refused, on the ground that she would not be experimented with any longer. I never saw the case again, and know nothing of her subsequent

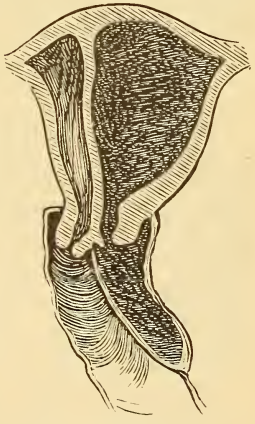


Fig. 48.
Double Uterus and Vagina, one Vagina Closed.

*Emmet's Prin. and Prac. of Gynæcology, page 208.

history." Dr. Emmet claims this as a case of double uterus and vagina; but the symptoms he relates might be produced by hæmatocele; hence the cut and diagnosis both draw upon the imagination.

The doctor might have been right in his diagnosis; he had no opportunity to confirm it. He relates, on page 209, a case which he saw with Dr. Watts, in Roosevelt Hospital, where there existed a sinus which passed up by the side of the vagina, and communicated with the uterus. There was but one uterus, and these two outlets were converted into one by dividing a thin septum. The doctor assumes a similarity in this case to the one first related; and, therefore, claims the first as a case of double uterus and vagina, mainly because the menstrual flow was irregular, occurring not less than eight weeks apart, hence concluding that the menstruation occurred one month into one side of the double uterus, and the next into the other. He claims this without knowing positively that there existed a double uterus or atresied vagina in the case. Abnormal developments should have a better basis of fact to stand upon than this.

Etiology of Atresia of the Vagina and Cervix Uteri.

Congenital malformation may present this deformity, but it is more frequently the result of a cicatricial process from inflammation, sloughing, ulceration, or laceration; or it may result in the vagina or os uteri, from the use of *caustic applications*, causing adhesive inflammation, or from inflammation following labor. Rokitansky describes a sort of concentric occlusion resulting from advancing senile atrophy.

The os is also occluded from want of care to maintain the opening after amputation of the cervix.

The external and internal os sometimes become occluded after the cessation of menstruation, and the mucous secretion of the endometrium accumulates within the uterus, causing nervous symptoms, which promptly vanish upon the re-estab-

lishment of the normal passage. This has occurred in my own practice, but I do not recollect it to have been mentioned by any other work on Diseases of Women. Barnes mentions that in infants and young girls atresia of vagina and hymen may produce serious consequences, and require an operation, on account of the retention of the secretions above the adhesion.

Abrupt flexions of the uterus may cause atresia at the internal os, when accompanied with inflammation and exudation, or granulation. The same may also result from the development of intra-mural fibrous tumors in the cervix, or lower part of the body of the uterus. Inflammation of the vagina in childhood may cause atresia; hence, cases of leucorrhœa in young giris must not be neglected (as the leucorrhœa is but a symptom of vaginitis, endo-cervicitis, or endometritis).

Symptoms.

In congenital atresia of the vagina or cervix uteri there is, of course, non-appearance of the catamenia. If the ovaries and uterus are normal the blood is effused, but retained above the point of the atresia, called *hæmatometra*, and gives rise to the symptoms about to be mentioned; and in acquired atresia, hæmatometra is a result. This arrest of menstruation, or its entire non-appearance, must be present in every case of atresia, whether congenital or acquired (if the uterus and ovaries are normal). But the absence of menstruation does not positively indicate atresia, for it might be caused by absence of the uterus or ovaries, or want of action in these organs.

A physical examination would show the condition at once. If no obstruction was found in the vagina the attempt to pass the uterine sound would reveal the atresia of the cervix if it existed. Just here some care is necessary not to fall into an error in diagnosis, as a contraction of the cervical canal or a flexion of the uterus might offer much obstruction

to the passage of an ordinary uterine sound. Generally, however, we will not feel it necessary to attempt this thorough examination till there is evidence of hæmatometra constituting a tumor of considerable size.

At first the patient may only suffer with monthly pains for a day or two, accompanied with some nausea or vomiting and epistaxis. A sense of fullness and bearing down in the pelvis is felt; and from month to month the epigastrium enlarges. Often the poor, innocent patient is suspected of pregnancy, on account of the increase in the size of the abdomen, and the tendency to nausea experienced. When the atresia is in the lower portion of the vagina, the pressure of the hæmatometric tumor may press so hard against the urethra as to cause retention of the urine, and upon the colon so as to cause obstinate constipation. Sometimes, when the atresia is not quite complete, there is an oozing of the serous portion of the retained blood at irregular intervals. Such a fistulous opening may for a time do much to prevent the severity of the symptoms caused from the retention of the flow, and will tend in a great measure to retard the development of the hæmatometra.

Prognosis.

The prognosis is, as a rule, unfavorable if the case is left to itself; still, there are exceptional cases on record where the patient has maintained good health, although the uterus was distended with retained menstrual blood. Simon* relates such a case. Usually, however, with an operation, if properly performed, the prognosis is favorable, especially if free evacuation of the vagina and uterus be accomplished. These cases are most likely to die from neglect, on account of an incorrect diagnosis, mistaking the hæmatometra for dropsy, ovarian or uterine tumors.

* Mon. f., Geburtskunde, 1851.

Treatment.

Atresia being an organic obstruction, the treatment required is mechanical or surgical, though remedies are valuable in the treatment of the conditions of the general system dependent upon the retention of the effused blood and its reabsorption into the circulation. These remedies must be selected in accordance with the symptoms in each case on the general plan of homœopathic therapeutics. But for the relief of the atresia an operation is required. Surgeons formerly fell into the error of making small incisions, and making two or three operations to complete the breaking up of the adhesions, and evacuating the hæmatometra, which allowed of the introduction of air, and the decomposition of the retained blood. At present surgeons are unanimous in the opinion that the operation should be completed at one time, and the retained blood be freely evacuated, followed by a thorough cleansing of the uterus.

Operation for Atresia or Absence of the Vagina.

The patient is placed under the influence of *Ether comp.* while lying upon the back with the thighs flexed upon the abdomen. A lateral incision in now made in cases where there is no depression to indicate the location of the vagina. If there is a depression, make the incision vertical, and reaching from a point about one-half inch below the meatus to within an inch of the anus. We next introduce a steel sound into the urethra. (See Plate V.) It should be about eight inches in length, of large size, and bent at a right angle; about three inches from the expansion of the handle is the best, as it distends the urethra more, if large, and its bent form enables the assistant to hold it more out of the way.

The assistant now seizes the handle of the sound and holds it firmly, as well as steadying the limbs, when the

operator passes one finger of the left hand into the rectum, and with the index finger of the right hand attempts to force a passage between the rectum and the bladder, bearing in mind the natural backward curve of the vagina. If unable to force the finger through the tissues, the handle of a scalpel may be passed by the side of the finger, and its movement from side to side may greatly aid in breaking through the tissues. When bands of tough fibre are met, the blunt-pointed bistoury may be introduced to divide them, always making the incisions laterally and keeping close to the rectum, so as to avoid wounding the bladder. When we arrive at the sac of the hæmatometra we may puncture it with the long curved trocar (see page 125), or Simpson's Hysterotome. (See Plate V). After the puncture is made and the fluid somewhat drained away, the opening should be enlarged laterally, so that at least two fingers may be introduced.

The uterine sound should be now inserted gently to ascertain if the cervix is pervious, and to note the size and position of the uterus and make sure that no blood is retained there. Usually in these cases we find the os uteri dilated by the retained blood, and we pass the finger readily into it. Sometimes the distension is so great as to make the os three or four inches in diameter.

We next introduce the tube of a Davidson's fountain syringe into the newly made vagina, or even into the uterus itself (using the vaginal tube), and thoroughly wash out the interior with carbolized warm water, placing a bed-pan under the patient, if it has not already been done.

After the washing out is completed, we smear the parts through which we have torn or cut with *Vaseline* or *carbolized ointment*, and introduce into the vagina one of Sims' vaginal glass dilators of good size, smeared with *Vaseline* (see Plate No. VI). This is retained with a **T** bandage, directing that the nurse hold it in position with the fingers in case the

bandage has to be removed for the calls of nature. Every twelve hours the dilator should be removed, the vagina washed with carbolized warm water and the dilator replaced, till the parts are thoroughly healed.

After the operation is completed and the dilator inserted, the patient should be placed in bed in a room of a temperature at 70°, and suitably wrapped to maintain the heat of the body. The recumbent position should be maintained for about two weeks. The character of the fluid in the hæmatometra merits a word. It is usually of dark color and rarely coagulated, owing to the deficiency of fibrine. The quantity varies in different cases, according to the length of time it has been accumulating. Leatherby analyzed forty oz., which gave water 875.4, albumen 69.4, globulin 49.1, hæmatosin 2.9, salts 8.0, fat 5.3, extractive 6.7.

Occasionally this fluid undergoes decomposition, and ulceration is established, ventilating the abscess into some of the adjacent cavities. Each case of this kind must be treated upon its merits. Generally speaking it is best to proceed with the establishment of the normal opening, if the patient is not in a condition of too great depression, for it is probable that with the establishment of the normal canal the fistulous opening would close by the natural restorative powers of the system. It has formerly been recommended to evacuate the hæmatometra with a trocar through the rectum, an operation which is open to serious objections, and one entailing more danger than the establishment of the normal vagina, and it is now discarded.

Treatment of Atresia of the Cervix Uteri.

After opening up the vagina, we may find the cervix impervious; or it may be closed in cases where the vagina is of normal size. The adhesions in the cervix may sometimes be divided by pressing into it the ordinary uterine sound. In other cases, it is necessary to use some instrument

more pointed. Some recommend the piercing the cervix with a long slender-bladed, sharp-pointed bistoury; but I prefer the long uterine trocar. (See Fig. No. 49.) First, we should take care to ascertain that there is no version or flexion of the organ, as well as we may do by digital rectal and vaginal, as well as conjoined, examination. This is usually not very difficult, as the distension of the uterus

Fig. No. 49—Uterine Trocar.

makes the examination more easy. The distension also, in most cases, produces a considerable shortening of the length of the cervix, especially if the atresia be confined to its lower portion. After introducing the trocar (which can usually be well done without anæsthesia), it is well to wash out the cavity of the uterus with warm, carbolized water through the canula, after the contained fluid is drained off; and to preserve the opening, a carbolized sponge tent may be inserted, to dilate it for six or eight hours, after which, I introduce a good sized bougie, anointed with *Vaseline*, once a day, till the cervix is thoroughly healed.

Bandaging.—After operating on any case of atresia of the vagina or uterus, where there has been a large hæmatometra formed, it is best to apply a large full compress over the epigastrium, and maintain it with a firm abdominal bandage.

CHAPTER XLVI.

FISTULÆ.

VESICO-VAGINAL FISTULA—RECTO-VAGINAL FISTULA—RECTO-VESICAL FISTULA—VESICO-CERVICAL FISTULA—URETHRO-VAGINAL FISTULA—INTESTINO-VAGINAL FISTULA—URETO-VAGINAL FISTULA—VESICO-UTERINE FISTULA—PERITONEO-VAGINAL FISTULA—PERINEO-VAGINAL FISTULA—BLIND VAGINAL FISTULA—FISTULA IN ANO.

To save space and time, as well as to make clear these various fistulæ and their appropriate treatment, I will discuss them in connection with each other.

Fistula in ano is not peculiar to women, but results from an abscess in the cellular tissue surrounding the rectum, and is sometimes a result of cellulitis in the female as well as in the male. Fistula in ano may be complete or incomplete, internal or external. In complete fistula in ano there is a fistulous opening from the bowel to the external part of the perineum, or posterior to, or beside, the anus. In incomplete fistula in ano the opening may only be external, in which case it is termed external fistula in ano; and when it opens into the rectum, and has no external opening, it is called internal, or blind, fistula in ano. When opening an abscess into the vagina, it is termed *blind vaginal fistula.*

Vesico-vaginal fistula signifies an opening between the bladder and vagina, allowing the urine to pass into the vagina.

Vesico-urethral fistula signifies an opening between the urethra and the vagina, allowing the urine to pass into the vagina, as in vesico-vaginal fistula.

Vesico-cervical, or *vesico-uterine, fistula* indicates a fistulous

opening between the bladder and cervix uteri, allowing the urine to flow through the cervical canal and vagina.

Recto-vaginal fistula signifies a fistulous communication between the vagina and rectum.

Ureto vaginal fistula is one where the ureter opens into the vagina, either as a congenital deformity or as a result of laceration or ulceration of vesico-vaginal tissues.

Intestino-vaginal fistula consists of a fistula between the small intestines and vagina, and may be applied to a recto-vaginal fistula also.

Recto-vesical fistula consists of a communication between the bladder and rectum, through an occluded or atresied vagina.

Vesico-vaginal fistula is the most common form of vaginal fistula.

Recto-vesical fistula is but little known. Simpson relates two cases. Most authors are silent upon this subject. It is usually, if not always, caused from an abscess in the upper part of the vagina, when there is complete closure of the lower part, and the abscess opens into both the rectum and bladder, allowing of the escape of the urine through the opening in the bladder into the vagina (which is occluded), and which has become in this case the cavity of the sac, and thence through the rectal opening of the abscess into the rectum. Fecal matter may pass into the bladder through this form of fistula.

Etiology of Fistulæ of the Vagina, Intestines, Bladder, and Rectum.

Protracted labor is the most frequent cause of fistulæ in the vagina, although they sometimes occur as a sequence of labors which are not of so very long duration as to be considered tedious or protracted; in these latter cases being caused by want of attention to the proper evacuation of the bladder during the progress of the labor, or to the presence

in the bladder of a calculus, which gets lodged between the head of the child and the pubis. The use of *Ergot* is to be blamed for many cases of vaginal fistulæ, especially when administered to the patient before the os uteri is largely dilated, and before the head of the child has engaged in the superior strait. This agent produces such continuous contraction of the uterus that unless the conditions of the os uteri and vagina are such as to allow of rapid delivery various injuries are liable to result, the most prominent of which are vesico-vaginal fistula and lacerations of the os uteri and perineum. It may be caused from a pessary cutting its way through, or from its long continued pressure causing an ulcer, and finally a fistula.

Recto-vaginal fistula is more seldom produced than vesico-vaginal, it being found in less than six per cent of the total number of cases of vaginal fistulæ on record. The presence of internal piles serves as a cause of the recto-vaginal fistula. It may also be caused by instruments used in operating for atresia of the vagina. Recto-, vesico-, or urethro-vaginal, fistulæ may result from accident in the attempt to establish a normal vagina in cases of atresia, or where it is congenitally absent.

The use of the obstetrical forceps has been blamed for producing vaginal fistulæ more than any other cause. It is true, a vaginal fistula has followed sometimes after instrumental delivery with forceps, even when they have been used by skillful and experienced hands; but still it is not clear to my mind that the instruments were the cause of the fistula.

I am of the opinion that the long continued pressure of the head of the child upon the bladder and urethra, for a great length of time, causes the sloughing and the resulting fistula. My own opinion is (and I know the same opinion is entertained by many eminent obstetricians), that if the forceps were used more frequently, and without

waiting for forty-eight or sixty hours to elapse before using them after their necessity was evident, the cases of vesico-vaginal, or urethro-vaginal, fistulæ would become exceedingly infrequent. I might mention several excellent reasons for their early use, but the discussion of the advantages of the use of obstetrical forceps does not come under the department of medical literature upon which I am now engaged. I desire simply to record here my belief in the fact that obstetrical forceps have been too much blamed for the causation of vaginal fistulæ. In corroboration of this I will say that during the past ten or fifteen years vesico-vaginal fistulæ are becoming less and less frequent; and the use of obstetrical forceps has very largely increased in that time.

Vesico-vaginal fistula is sometimes established artificially by the surgeon for the relief of chronic cystitis, as mentioned under the head of cystitis. Dr. Emmet reports sixteen cases of this kind.

Accidental incised wounds or lacerations from the breaking of a glass syringe in the vagina may cause either vesico-, urethro-, or recto-vaginal fistula, and vesico- or urethro-vaginal fistulæ; or they may be caused accidentally, in operations for the removal of a stone from the bladder. A pelvic abscess may ulcerate through, so as to cause either a vesico-, blind-, or recto-vaginal fistula.

Vesico-vaginal fistula has been known to result from a calculus in the bladder upon which no operation had been attempted, and which had no connection with labor. Schroeder* mentions a case, reported by Simon, in a girl eight years old. Intestino-vaginal fistula may result from laceration of the cervix in labor, extending to and including the posterior vaginal wall in its upper part, allowing the protrusion into the vagina of a knuckle of intestine through the rent, this being followed by inflammation, strangulation, gangrene, and sloughing, a fistulous opening or an *anus præter-*

*Ziemssen's Cyclopædia, Vol. X, page 515.

naturalis is established. Falls upon sharp sticks, penetrating the vagina, syphilitic or cancerous ulceration may cause either of these fistulæ of the vagina. Ulcerative action in the bladder, or syphilitic, or diphtheritic ulceration in the vagina may also cause them.

Vesico-cervical or vesico-uterine fistula may be caused from laceration of the cervix in confinement, implicating the vesical wall. The vagina and lower part of the cervix heal and the vesico-cervical fistula remains. This is sometimes carelessly termed vesico-uterine fistula.

Diagnosis.

Generally the first symptom which is noticed in vesico or urethro-vaginal or vesico-cervical fistula is a dribbling of urine from the vagina. This the patient at first supposes is the result of inability to hold it on account of weakness of the parts. Soon she finds that upon attempting to pass her urine little or none passes through the natural outlet, but passes through the vagina, and she takes alarm and consults her physician. The diagnosis of the exact nature of the difficulty is made out by a conjoined exploration with a finger of the left hand in the vagina and with the sound in the urethra or bladder. Sometimes the fistula is so small as to make it impossible to pass the sound through it, and it then becomes necessary to examine the vagina with a Sims' improved speculum (as invented by Dawson), or a trivalve, thus bringing the anterior wall of the vagina into view, as well as the os uteri. If the urine be found dribbling from the os uteri, this fact is conclusive of its being a case of vesico-cervical fistula.

Recto-vaginal fistula is discovered by the passage of flatus and fecal matter per vaginam. The examination made with a finger in the rectum, and a sound or probe introduced through the vaginal opening of the fistula till it penetrates the bowel through the rectal opening, is necessary to

determine its exact locality and size. Either of these fistulæ may be large enough to admit of the passage of a finger through them, but this is not often the case.

Intestino-vaginal fistula is diagnosed by finding the rectum intact, and discovering the fistula in the upper and posterior part of the vagina, conjoined with the character of the discharges, which are thin and bright yellow mingled with particles of food or fecal matter.

Treatment.

Recent Cases.—In the treatment of recent cases of vesico- or urethro-vaginal or vesico-cervical fistula the patient should lie uninterruptedly upon the side (if the laceration or fistula is situated to either side of the median line in cases of vesico-vaginal fistulæ the patient should lie upon the opposite side), that the urine may be retained in the bladder for some time without passing through the fistula.

A silver self-retaining catheter should be placed in the bladder by passing it through the urethra (a small size should be used if the fistula communicates with the urethra so as to not stretch the canal in the least). The catheter should be removed and cleansed every two or three days to prevent incrustations of phosphatic deposits on the surface. Making sure that the urine in the bladder is all discharged, we may daily turn the patient from side to side, and use a warm vaginal injection of water and castile soap.

Attention should be given to the diet and various hygienic means to place our patient in as good a general condition of health as possible, and such remedies given as seem to be homœopathically indicated. By following out this plan very many cases will spontaneously recover in periods of time varying from two to six weeks.

I am pleased to see that Professor Emmet* encourages conservative treatment in these cases. He says: "In arti-

* Emmet's Prin. and Prac. of Gynæcology, page 618.

ficial fistulæ the raw edges are kept in a healthy condition by the frequent use of the injections (warm water) and free from the irritation always exerted by a deposit from the urine. Whenever this is done the largest sized artificial opening will often rapidly close of itself." He relates two cases which were sent to the hospital immediately after delivery, who were suffering from fistulæ of the vesico-vaginal variety, of a size large enough to admit of the introduction of the index finger into them, which healed rapidly under the treatment of warm vaginal injections.

If there is present any inflammation of the bladder or abnormal condition of the urine, we may introduce the warm water directly into the bladder through the catheter, or by way of the vagina through the fistulous opening. In cases of several months or of years' standing, an operation is usually necessary to cause union of the edges of the fistulæ. Sometimes, however, they may be cured by remedies and local applications to stimulate granulations.

We must be guided much by the circumstances of the case and the wish of the patient and friends in the treatment. We can usually promise a good hope of a cure from an operation, but some patients have a serious objection to an operation who are willing to suffer a great amount of inconvenience and great loss of time, and be put to any amount of expense in order to avoid an operation. In this class of cases it is advisable to make an attempt to cure the case by other means. These measures must have for their end the cleansing of the vagina and the fistula from all phosphatic or other deposits, causing the urine to flow through the normal canal and causing granulations to develop around the fistula, so as to approximate its edges, and, finally, to cause union, thereby obliterating the fistula by this process. It is really aiding nature to pursue the same process which it undertakes so successfully in the recent case, as I have learned from experience it will do, and as I have quoted from Dr.

Emmet to show that it has been seen in the experience of others.

First, then, if we are to make the attempt to heal the fistula without operation, we must attend to the cleansing and healing of the vagina, for in some cases the parts become exceedingly inflamed, and in some instances ulcerated. In some patients, where the urine is very heavily loaded with the phosphates, even the thighs on the inside and the buttocks become inflamed and ulcerated, and it is best to relieve these parts of the inflammation and heal the ulceration before proceeding to apply treatment to the fistula, otherwise the pain which we would cause in attempts to get at the fistula would be almost unendurable. For this purpose the flow of urine through the fistula must be arrested. This is to be accomplished by placing the patient upon her side and introducing into and leaving in the urethra a suitable catheter (some prefer silver, some gum elastic), and retaining it there and cleansing it often, as in the recent case, and administering to the patient remedies calculated to restore the urine to a normal condition.

Remedies.

The following remedies should be studied in the Materia Medica, and prescribed according to the totality of the symptoms:

Sepia, *China*, *Dig.*, *Puls.*, *Cal. carb.*, *Nit. ac.*, *Sulph.*, *Spongia*, *Phos.*, *Phos. ac.*, *Ferrum*, *Terebinth.*, *Ant. cru.*, *Merc.*, *Sol.*, *Ars. iodid.* Acidulated drinks may be freely used, that, if possible, the urine be kept in a normally acid condition. The incrustations must be washed or wiped away, using a very soft cloth or sponge saturated with warm water, to which a very little castile soap is added. After washing away the incrustations, the parts inflamed or ulcerated should be bathed with *Calendula wash*, made by adding about four ounces of water to a table-spoonful of *Tr. Calen-*

dula. This should be repeated four or five times a day till the parts are healed. It is well to use *Vaseline* over the parts when almost healed, to soften them and prevent the formation of a cicatrix around the point ulcerated.

After the vagina has been healed so that nothing remains abnormal but the fistula, we introduce into the vagina a Dawson's improved Sims' speculum, so as to bring the vaginal portion of the fistula into view; then with a syringe which has a long, curved nozzle inject the bladder through the fistula (if it be vesico-vaginal) with warm soap and water daily. After the free use of the water we pass a sound wrapped with cotton saturated with *Iodine* through the fistula, 15 grs. to the oz., taking pains to apply the *Iodine* to the margin of the fistula thoroughly, but not so freely as to allow it to drop into the bladder or vagina.

If the fistula is vesico-cervical, we pass the *Iodine* up into the cervix to the point of the opening of the fistula, and hold it there for a few moments, turning the patient a little on to her face, so as to aid the *Iodine* in passing into the fistula. In case the os uteri is not large, dilate it with sponge tents, so that the sound wrapped with cotton may pass without being compressed, so as to drain off the *Iodine* before it reaches the fistula.

In case the fistula is urethro-vaginal, the edges of the fistula may be touched with a brush saturated with the *Iodine*, after thoroughly cleansing the parts with the warm water and soap, by means of a soft sponge. The strength of the *Iodine* must be increased if we find after two or three weeks that no granular inflammation is established in the walls of the fistula. After granulations have become well established (and the fistula is a large one) we gain much time by taking two or three stitches with silver wire, to draw the edges of the fistula together. The patient will sometimes be willing to submit to our placing two or three sutures, after she has been treated some time, who would not submit to an operation at first.

Operation for Vesico-vaginal Fistula.

In the very recent case of vesico-vaginal fistula, if the patient be willing to submit to an operation, the sooner it is performed the better, if the patient's strength is sufficient to allow of it. The bowels should first be freely evacuated by enemæ of warm water. No anæsthetic is usually required, in the recent case, a good drink of *Sp. Vin. Fermenti* being sufficient to brace the nerves for the operation. The patient should be clothed in flannel drawers and under vest, with a night dress over, which should be drawn up around the waist. She should lie upon her left side with the thighs flexed upon the abdomen. She should lie upon a high operating chair or table, high enough so that the operator may sit conveniently. (It is next to impossible to perform the operation satisfactorily with the patient upon an ordinary bed or lounge.) A Sims' speculum should be introduced and held in position by an assistant, so as to bring the fistula into view. If the speculum does not readily bring the fistula into view, a retractor must be introduced to draw back the perineum and posterior part of the vagina.

We now proceed to inspect the parts, and determine what plan to pursue. If the edges of the fistula appear healthy, and appear to have vitality enough to promise a prospect of

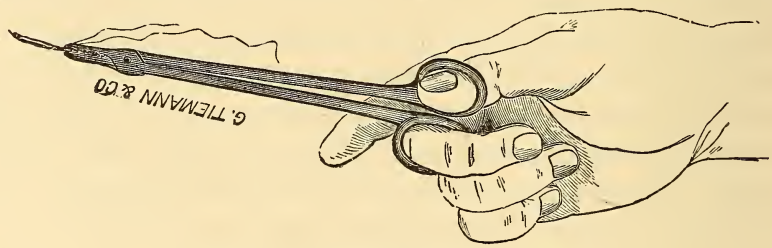


Fig. No. 50.—Sims' Needle Holder.

adhesion taking place when they are placed in apposition, we may proceed at once to stitch them together, placing the sutures (which should be of silver wire) in the position which

will most conveniently draw the edges together. The stitches should be placed about three-eighths of an inch apart, and may or may not be set deeply enough to include the vesical mucous membrane. I prefer to include this membrane in placing the suture, using the semi-circular vesico-vaginal

FIG. NO. 51.—EMMET'S COUNTER-PRESSURE HOOK.

needle; and have the wire threaded, into the needle, at least eighteen inches long. Seize the needle near the eye with a long-handled pair of straight, slender needle forceps, if the longest diameter of our incision corresponds with the median line; but if the longest diameter of the incision is transverse the vagina, we use our curved needle holder. (See chapter on Instruments; also Plate VI.) This enables us to grasp the needle so as to insert it in a direction corresponding to the median line very conveniently.

By using my needle holder we see clearly what we are doing, as the handle of the holder is to one side of the vagina while we insert the needle. This needle holder is curved simply in the blades which grasp the needle, holding it at right angles, with the handle of the holder, and with its concavity directed towards the operator as he holds the needle in the grasp of the holder ready for use. Pierce the tissues on the upper side, about one-fourth of an inch back from the fistula, press it through till about one-half the needle emerges from the fistula; then let go the end of the needle, and seize it in the portion emerging from the fistula, as far back towards the eye as we can, and draw it through, and then insert the needle in the opposite side by entering the needle into the fistula, and bringing it out one-fourth of an inch to the side of the fistula, opposite the one we at first pierced. Now seize the needle with the forceps and draw it through till it is outside the body, pressing back the tissues with the counter-

pressure hook, or Nott's Depressor (see Figs. 51, 52); taking care to hold on to the end of the wire, that it be not drawn entirely through.

Now we have the stitch inserted and both ends of the wire within our grasp. Pass both ends of the wire through the eyes of an instrument I have invented, called a wire holder and twister. (See chapter on Instruments, and Plate VI.) Holding on to the ends of the wire passed through the eyes

Fig. No. 52.—Nott's Depressor.

of the instrument with one hand, we carry the wire holder down to the fistula with the other, steadying it there by the handle. We now seize the ends of the wire and the handle of the holder and twister, pressing the holder down firmly upon the vaginal tissue, and drawing the wire a little tightly we approximate the edges of the fistula by this movement; and we have but to turn the instrument round in our fingers three or four times, and the wire is firmly twisted.

Now remove the holder and cut off the wire with a long pair of scissors about a half-inch from the vaginal tissues. Other sutures are to be placed in the same manner till the fistula is closed.

The stitches should be allowed to remain for about ten days or longer, and every day we may make an application to the edge of the fistula of *Tr.* of *Iodine* to excite adhesive inflammation, using a Sims' speculum gently, to bring the parts into view. The vagina and bladder should be daily injected with *Calendula wash*, and the patient should be kept upon her side with a catheter retained within the bladder, passed through the urethra, removing and cleansing it, however, every two days, to prevent incrustation upon its surface of phosphatic deposits. If pain is complained of, *Arnica* or *Cantharides* are usually indicated. If inflammation arise with

fever, *Aconite* is the indicated remedy at first, usually followed by *Bryonia*. Generally these four remedies are the ones required, unless complications arise, which must, of course, be treated according to the most prominent indications.

Operations in Chronic Cases of Vesico-vaginal Fistula.

Chronic cases have to be treated somewhat differently from the recent case. In chronic cases the fistula has become incrusted with urinary deposits, and a sort of mucous membrane has formed around the fistula. This must be cut away, and a raw, fresh surface made before the sutures are inserted, in order to secure union by first intention, or even rapid union by granulation. For this purpose the long-handled, curved-bladed scissors are the most convenient. After the preparatory treatment previously mentioned in operations on the recent case, and having cleared the parts from incrustations and applied *Calendula wash* till the vagina is in a healthy condition, the patient having been for some time kept on her side with a catheter in the urethra to secure the free drainage of the urine from the bladder, that it may not pass through the fistula and keep up the irritation. Due

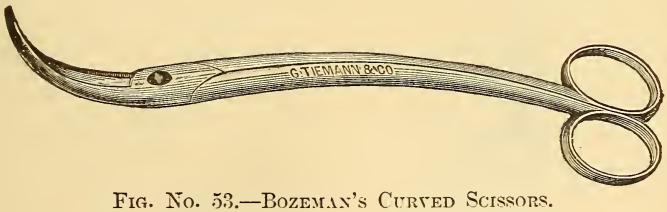


Fig. No. 53.—Bozeman's Curved Scissors.

attention should be given to the general health of the patient, that there may be as much plasticity of the blood as possible; the bowels kept open by injections of water and indicated homœopathic remedies.

The operator should have four reliable, intelligent assistants, and see to it that warm and cold water in suitable vessels is at hand, with towels, napkins, rags, sponges, hemastatics, needles, and other instruments he may require, not

forgetting *Spts. Ammonia* and *Nit. Amyle* (for the prompt use of these remedies may save a life, which otherwise might be lost by the administration of anæsthetics).

Every thing being in readiness, the patient may be placed under an anæsthetic while in bed, and after anæsthesia is partially induced, the operating table and instruments may be brought in from an adjoining room, where they have previously been prepared, together with the other conveniences already referred to. After anæsthesia is quite profound, the patient may be lifted upon the operating table, taking care to keep her head as low as her body, for otherwise death might make further steps in the operation quite unnecessary.

The patient is to be placed upon her left side, with her head low, and an experienced physician given charge of the keeping of the patient under the effect of the anæsthetic properly. The Sims' speculum and retractor is to be used as before mentioned. The right limb should be supported upon a large pillow to separate the limbs. We now seize one edge of the fistula with the tenaculum, raise it slightly, insert the scissors or slender scalpel, and freshen the margins of the fistula, making the opening in the vagina somewhat elliptical, or diamond-shaped, as represented by the dotted line in Fig. No. 54. This enables us to adjust the edges more evenly than we could by leaving the margin of the fistula round or irregular in shape. In freshening this surface with the scissors, it is best to exercise a little care to not include the cystic tissue, for great

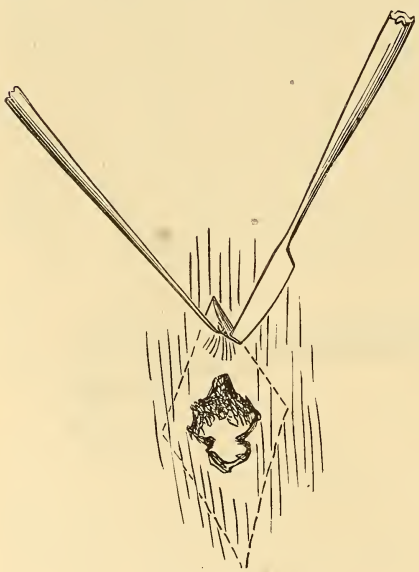


Fig. No. 54.

hemorrhage would be likely to ensue, and defeat, for a time at least, the success of the operation. 'T is true, Simon included the vesical mucous membrane in his incisions; but how he could succeed in preventing troublesome and dangerous hemorrhage we can not see. Prof. Peaslee lost a case from this cause. Prof. Emmet came near losing two patients in this manner.

If we should accidentally incise the bladder in making these incisions to freshen the edges of the fistula, we should saturate a handkerchief in a small part of its central portion with liquid *Ferri Persulph.*, and insert it by means of the finger or a sound through the fistula into the bladder, and then pack cotton into its interior till strong pressure is exerted against the walls of the fistula, especially the incised portion.

When, however, we have succeeded in freshening the vaginal tissues without cutting the cystic membrane and causing excessive hemorrhage, we may, as soon as the little hemorrhage commonly present is arrested with cold applications, proceed to insert the sutures, as described in the treatment of the recent case; and the after treatment is about the same, save that there is no need in these cases of applying any *Iodine* to the seat of the fistula, for the freshening of its edges has placed it in a condition to heal by what is termed first intention, while in those cases called recent, the union is usually produced by the throwing out of granulation, the cases being of several days' standing.

After the operation is completed, wash all blood out of the bladder with the reversible catheter and a syringe. Now, the patient should be placed upon her side in bed, and allowed to come out from under the influence of the anæsthetic. The catheter should be retained, as previously mentioned, and the patient kept upon the side for at least ten days or two weeks. The *Calendula wash* may gently be injected into the vagina and bladder each day, and the bowels

may be moved by warm water enemæ. *Aconite*, *Arnica*, *Hamamelis*, *Canthar.*, or *China* may be indicated.

Operation for Urethro-vaginal Fistula.

The same general principle of treatment holds good in the treatment of urethro-vaginal fistula, as I have just described in the treatment of vesico-vaginal fistula. The laceration is usually at the upper portion of the urethra, and extends somewhat into the bladder, the peculiarity of this condition being the amount of protrusion of vesical tissue which prolapses through the fistula into the vagina, making it necessary to modify the steps of the operation somewhat from that just described in the treatment of vesico-vaginal fistula. Fortunately the parts are more easily reached than where the fistula is situated higher up in the vagina, and consequently the prolapsed tissue can be more readily replaced than it could be if it occurred in vesico-vaginal fistula.

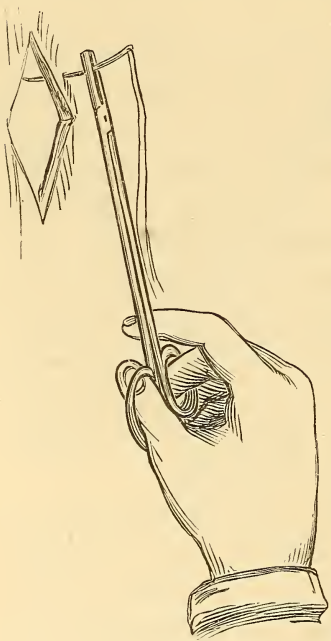


Fig. No. 55.

The patient should be prepared for the operation the same as in vesico-vaginal fistula. The preparation of the clothing, table, and instruments about the same. A good sized sound should be introduced into the bladder through the urethra and held by an assistant; or a catheter may be used in place of the sound, which saves the necessity for the removal of the sound and the introduction of the catheter after the completion of the operation, which is certainly some advantage. If the case is a recent one, and the vaginal edge of the fistula has granulating surfaces, we at once proceed to stitch them together with the

silver wire, using the semi-circular vesico-vaginal needle to carry it. Care must be taken in placing the sutures, that we turn back into the urethra the redundancy of tissue which protrudes through the fistula; for, should we cut it away, we would deprive the patient of retentive power in the bladder, as it is this redundancy of tissue, which serves in place of a true sphincter muscle at the neck of the bladder; and besides the cutting away of this apparent excess of tissue would very likely cause alarming hemorrhage.

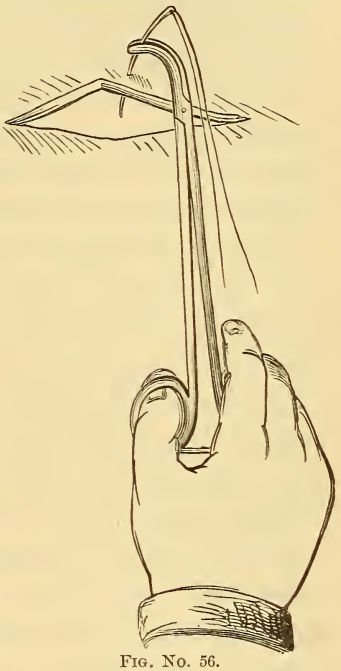


Fig. No. 56.

There is, perhaps, more skill required in the placing of the sutures in urethro-vaginal fistula than in cases of vesico-vaginal fistulæ. The needle must be inserted, so that when the suture is tightened the protruding tissues are turned back into the urethra, and the vaginal membrane is brought together over them. Either the straight or my curved needle holder may be used, as the rent is situated longitudinally or transversely to the axis of the vagina—the straight holder being most convenient in inserting the needle from side to side (see Fig. No. 55), and my curved holder if we have to insert it from above downwards, or *vice versa*. (See Fig. No. 56.) After the wire is inserted the ends of the wire are passed through the eyes of my wire holder and twister (Plate VI), and the wire tightened as we draw gently upon the ends of the wire, and carry the holder down firmly against the vaginal tissues, at the same time aiding the turning in of the prolapsed vesical tissue with the finger of the left hand while we hold the twister with our right, at the same time grasping the wires, together

with the handle of the instrument. Twisting the wires once around the index finger of the right hand, enables us to make traction upon the wire, and press the instrument up against the fistula firmly, and gives us the use of the left to turn in the excess of tissue at the same time. After the raw vaginal surfaces of the opposite sides of the fistula are brought together the twister is to be turned around about three times to secure the suture, when the instrument is withdrawn and the wire cut as before.

In case the urethro-vaginal fistula is of several months or years standing it becomes necessary to freshen the edges of the fistula before taking the sutures. In this part of the operation care is to be exercised not to cut the prolapsed cystic tissue. A small tenaculum is convenient to lift up the vaginal tissue around the fistula, so that we can incise it with a pair of scissors. (The long, slightly curved scissors, page 523, are the most convenient.) After freshening the vaginal edge of the fistula the superabundant prolapsed tissue is to be rolled back into the urethra, and the sutures placed as just mentioned in the treatment of the recent case. After the operation the patient is to be treated in all respects as after the operation for vesico-vaginal fistula.

Treatment of Recto-vaginal Fistulæ.

There are sometimes serious obstacles in the way of the treatment of recto-vaginal fistulæ. When the recto-vaginal fistula is caused from syphilitic ulceration no operative procedure can be of any use, on account of the want of plasticity in the tissues. In this instance remedies given internally for the syphilitic condition of the blood, together with local applications of *Calendula* wash to the vaginal membrane to heal it, and of *Tr.* of *Iodine* directly into the fistula to stimulate granulations around its margin, is the advisable treatment.

In cases of cancerous ulceration, causing the recto-vag-

inal fistula no operation is advised. The application of *Kreosote* 1[x] locally, with the internal use of *Phytolac. dec.*, *Thuja*, *Merc. cor.*, *Nit. ac.*, etc., is most commonly the indicated treatment. We may say, incidentally, that this plan of treatment is applicable to either form of vaginal fistula caused from syphilitic or cancerous ulceration.

Where the recto-vaginal fistula is the result of direct injury (called traumatic lesion) we should at once cleanse the parts thoroughly, and evacuate the bowels freely with enemæ. Give remedies to cause a cessation of peristalic action in the bowels, and prevent their moving for a week or so, keeping the patient nourished with beef tea, and maintaining the horizontal position in bed, that every thing may be favorable to the healing of the wound by first intention. If in three or four days we make a careful examination of the parts, and find they have not healed, stimulating local applications may be made to the lacerated surfaces to aid in promoting adhesive inflammation or granulation; and the bowels should be still longer kept inactive, and the diet of beef tea continued for perhaps two weeks more. If by this time we find we have failed in securing union of the edges of the wound we had better allow the bowels to move, and restrain them again for two weeks, especially if we find the appearance of the fistula indicates that by that time it may become closed. During this time the daily use of warm water vaginal injections is of great service.

It is advisable to stitch the lacerated tissues together in some instances where they are extensively divided. To do this the patient should lie upon the back, with the thighs flexed upon the abdomen. (See chapter on Lacerated Perineum.) The vagina is conveniently dilated with two of Dawson's improved Sims' speculums, one on either side, screwing open the divided blade to give room to examine the laceration, and to take the stitches. The same instruments are required as in operating for vesico-vaginal fistula, except

that no freshening of the edges of the fistula is required in the very recent case. Where the injury has been received several weeks or months previous to the time we are called to take charge of the case, or to operate, it is necessary to freshen the edges of the fistula before stitching them together; and here we may use the curved scissors. (See Fig. No. 57.)

Fig. No. 57.—Curved Scissors.

Cases of recto-vaginal fistula which have been caused from an abscess between the vagina and rectum may require a somewhat modified treatment if they are of long standing. The collapse of the sac of the abscess, and the adhesion of its walls in some instances, causes the vaginal walls to become so firmly adherent to the rectum and sides of the pelvis that it is necessary to loosen them from their attachments before the edges of the fistula can be brought together without using an undue amount of traction, which would be likely to cause the sutures to cut through before union had taken place. It then becomes necessary to separate or dissect up the vaginal tissue, so that it is capable of being drawn by the sutures enough to promote union of the edges of the fistula without causing the sutures to cut through the tissues.

For this purpose we seize a portion of the vaginal membrane nearest the fistula with a tenaculum, or a pair of dressing forceps, after having freshened the edge of the fistula, and with a scalpel dissect up the membrane a short distance; then insert the handle of the scalpel, or use the end of the finger, to further divide or peel up the membrane, sweeping the finger around the circle of the fistula till the vaginal membrane is quite free for a distance of an inch and a half or so on either side of the fistula, after which we may bring the edges together with interrupted suture. The vaginal membrane again unites to the rectum and sides of the pelvis,

but in a different position. It now forms a wall for the vagina, and partially for the rectum as well; and finally a true mucous membrane is formed over the new vaginal patch of membrane on its rectal side, curing the rectal opening in this way. When, however, the opening of the fistula in the rectum is directly opposite the one in the vagina we may at the first operation divide the recto-vaginal septum slightly, hook out the rectal membrane with a tenaculum, slightly freshen the edge of this membrane, place two or three sutures in it, and on the tenth day remove these sutures, and complete the operation by closing the vaginal opening of the fistula, as just described.

Time to Operate.—About four or five days after the menstrual period is usually the best time to select for operating upon either variety of vaginal fistulæ, and should not be within ten days of the expected commencement of the menstrual period. The reason for this is obvious.

Recto-vesical Fistula.

This form of fistula in the female is very rare, as I have stated, and can not exist independently of atresia of the vagina. Keeping the patient on her side, with a catheter retained in the bladder for several weeks, may effect a cure of the cystic portion. It is well to restrain the action of the bowels at the same time. The menstrual flow might then take place through the rectum, if that part of the fistula remained open. We *may operate* for the atresia first, and afterwards for the fistulæ, which would then become vesico-vaginal and recto-vaginal, and may be treated in a similar manner as when present singly, as a result of severe labor.

Vesico-cervical, or Vesico-uterine, Fistula.

It has been suggested to artificially cause occlusion of the vagina in this form of fistula, but the operation must

always prove unsatisfactory, on account of the retention of stale urine in the superior portion of the vagina not occluded. Occluding the lower part of the cervix uteri is, to my mind, a much more desirable operation. To do this we draw out slightly a little bit of the cervical membrane, and clip it with scissors, having previously drawn down the uterus with a stout tenaculum to the os vaginam, which should be held there by an assistant holding the tenaculum upwards against the pubis. We may now seize the clipped piece of the lining of the cervix, and dissect it out all around; then insert a silver wire suture so as to draw the lips of the os uteri quite firmly together. Leave the suture seven or eight days. If atresia of the cervix results the menstrual flow may pass away through the bladder. Frequent evacuation of the urine must always be attended to, that it does not back up into the uterus.

Treatment of Ureto-vaginal Fistula.

If congenital this difficulty can not be cured. If accidental the ureter is attached to a piece of the vesical membrane; and the ureto-vaginal fistula may be treated similarly to the vesico-vaginal, of which it is a complication, if it exists at all. We must, however, be cautious not to include the ureter in our sutures. Taking care not to do this, we treat the case exactly as an ordinary vesico- or urethro-vaginal fistula.

Treatment of Intestino-vaginal Fistula.

Very small fistulæ of this variety may be treated by frequent applications of solid *Argent. nit.* If large the edges of the intestine should be freshened and stitched together. When union of the edges of the fistula has taken place, so far as the intestine is concerned, the vaginal rent may be freshened (after returning the prolapsed intestine) and stitched, as in recto- or vesico-vaginal fistulæ.

Treatment of Fistula in Ano.

This difficulty, arising from an abscess caused by pelvic cellulitis, is to be treated by remedies and means to cause irritation in the cavity of the abscess; and, consequently, closure of both abscess and fistula. Sometimes the injection of dilute *Tr. Iodine comp.* into the abscess, and repeated every two days, conjoined with pressure against the perineum, cures these cases readily. *Merc.*, *Cal. carb.*, *Sepia*, *Nux*, etc., are the usually indicated remedies. If all these means fail, free division of the tissues with the bistoury and applying some irritant to the fistula itself, is the means to be used in very obstinate cases of complete fistula in ano. In incomplete fistula the treatment is similar, except that sometimes it is necessary to make an incomplete internal into a complete fistula in ano, by making an external opening, so as to evacuate perfectly all the matter contained in the sac, which is often situated at the extremity of an internal blind fistula, and then to treat the case as in ordinary complete fistula in ano. Sometimes the insertion of a thread into or through the fistula, bringing it out through the anus and tying it, and then moving it from day to day, causes an irritation, which promotes the throwing out of granulations; and, consequently, causes a cure of the fistula. In works on surgery this fistula is usually well described, and its treatment fully laid down. I will say, however, that I have cured many cases without a resort to incision, or the use of the seton or ligature, by means of the treatment first suggested.

Results of Treatment of Vaginal Fistula.

Taken altogether the result is usually satisfactory; much is dependent upon the extent of the loss of tissue from sloughing, and the skill of the physician, as well as the willingness of the patient to co-operate in the treatment. Professor

Emmet* has given us some valuable and interesting records of cases, which I take the liberty to abridge and record here. He reports but one death out of 171 cases of vesico-vaginal fistulæ operated on. In 6 cases the result he reports unknown, improved 11, not improved 4, cured 149. These were, I understand, all chronic cases, except two, which recovered without operation. Doubtless even this favorable result may be improved somewhat in a general average of all cases which may hereafter be recorded, owing to a better understanding of the difficulty by the profession at large. The operations for vesico-urethral fistula show about as good success, though the number recorded is much smaller.

Other Methods of Operating in Vesico-vaginal and Urethro-vaginal Fistulæ.

Sims' Operation.—Professor Sims' operation, as described by Thomas,† is somewhat different. He prepares the parts for the sutures by freshening the edges in a similar manner, and then takes stitches with silk thread first, and then, after they are inserted, he attaches the silver wire to the end of each silk ligature, then draws the wire through the tissues with this, cuts off the silk from the wire, then twists the wires with his wire twister, which has a slit in it to hold the wires (a sort of fork in shape). We think the introduction of silk sutures, to draw the silver wire suture through with, is quite unnecessary and is liable to many embarrassments.

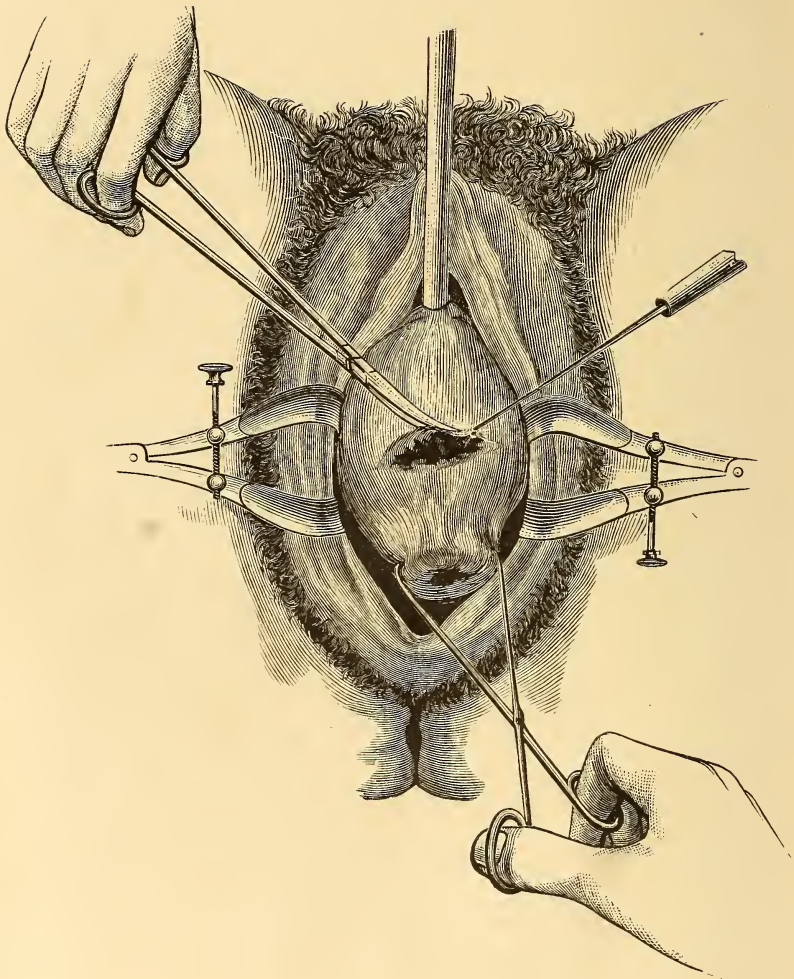
First. As he inserts all the silk sutures before he attaches a wire there is confusion among the threads.

Secondly. The silk suture may break when drawn upon firmly enough to draw through the loop of the wire.

Thirdly. We sometimes find it impossible to make the wire come through the opening in the tissues made by the needle.

* Emmet's Principles and Practice of Gynæcology.
† Diseases of Women.

Plate XVII.



UTERUS DRAWN DOWN, TO BRING INTO VIEW A VESICO-VAGINAL FISTULA, FOR CONVENIENCE OF OPERATING.

Fourthly. This plan leaves the fistula entirely open till all the sutures are placed, and we have trouble in selecting the right ends to twist together, or get the other wires twisted in with the suture we are attempting to secure.

Simon's Operation.—He places the patient on her back, with the hips at the edge of the table, and resting upon a large, hard pillow—uses wide specula as retractors. He incises the vesical mucous membrane in freshening the edge of the fistula, as I have before mentioned. When possible to do so he draws down the uterus exterior to the body, thereby inverting the vagina and bringing the fistula into view, which simplifies the operation materially. (See Plate XVII.) He places two rows of sutures, one to approximate the edges of the fistula, and the other, inserted further back from the laceration, to take off any strain on the first sutures. He objects to the retention of the catheter in the bladder.

Removal of Sutures.

In about ten or twelve days the sutures may be removed. Some operators remove them sooner, even as early as five or six days; but we prefer to wait ten or twelve days, so as to secure as firm a union as possible before they are removed. Sometimes there exists a small fistula on the sixth day which

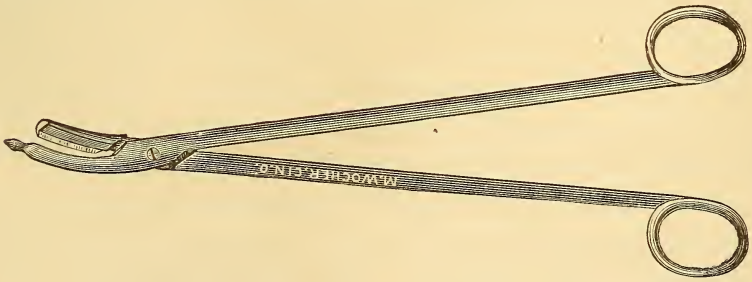


Fig. No. 58.—Cutler's Forceps and Suture Cutter.

will be healed by granulation by the twelfth day; and if we removed the sutures on the sixth day in such a case we would be likely to make the fistula larger by drawing out the wires,

and cause a necessity for a second operation. To remove the sutures pass the index finger of the left hand into the vagina and feel for the highest suture; then with Cutler's suture cutter and forceps we cut and remove it; then the next below, and so on. This instrument is the invention of Mr. W. P. Cutler, a student of mine, and is very convenient. It is made about seven inches in length, with a cutter placed on one side of the upper blade. The lower blade is made probe pointed to insert under the suture more readily.

Method of Using the Instrument.—Insert the index finger of the left hand into the vagina till we feel the highest suture; then insert the forceps with the right hand, keeping them closed, using the finger already introduced as a guide; insert the point of the lower blade under the suture to the right of the twist, open the blades a little, so as to allow the wire to pass between them; then close the forceps which cuts the wire and grasps the twisted end and holds it firmly, when we gently lift the suture out of the tissues. The cutting and grasping of the suture is done with one pinch of the forceps.

Cautions.—If there is considerable hemorrhage the washing out of the bladder must not be neglected after the operation is completed, as a large clot of blood in the bladder might cause much trouble. In removing the stitches be careful to remove them entire and not cut them on both sides of the knot, and leave a part of the suture to drop into the bladder and serve as a nucleus for a calculus. With Cutler's suture forceps this can hardly occur, as they cut the suture and hold on to one end of it at the same time.

Elytroplasty.—Elytroplasty resembles rhinoplasty performed by surgeons upon the face. It consists of freshening the edges of the fistula, as heretofore described, and then dissecting a flap from the wall of the vagina or buttock, and placing it into the fistula and making it adhere there by stitching it carefully to the freshened margin of the fistula. The operation has, of late years, fallen into disuse.

Episiorraphy.—Where there is very extensive ulceration of the vaginal walls, and the case is complicated with extensive cicatricle adhesions, episiorraphy is sometimes performed. It is comparatively an easy operation, and consists in paring the inner surface of the labia majora and stitching the opposite sides together; or cutting the margin of the vulva and placing sutures so as to bring its sides together, and thereby obliterate the vaginal outlet. For at least ten days after the operation the patient should lie on her stomach with a self-retaining catheter in the bladder (which must, of course, be removed and cleansed every two or three days), so as to prevent the urine from accumulating in the vagina before adhesions have formed. The menstrual flow thereafter must pass through the urethra with the urine.

Kolpoklesis.—Kolpoklesis is similar to episiorraphy. In this operation the vagina is obliterated higher up, leaving pervious as much of the vagina as possible. Professor Simon is the originator of this operation, and claims that over fifty operations have been performed in Germany with success.

Simple Vaginal Fistulæ.

These forms of fistulæ open into the vagina, but do not communicate with either of the natural outlets of the body. They may be

Blind fistula,
Perineo-vaginal fistula,
Peritoneo-vaginal fistula.

The blind vaginal fistula is usually caused from a cellular abscess opening into the vagina. It may be situated on the anterior, posterior, or lateral sides of the vagina, but is most frequent on the lateral or posterior sides. They may be treated by injections of *Calendula* diluted, or, if chronic, may be injected with *Solution of Iodine* every two days till granulations are developed. Another good way to treat them is to wrap a sound or probe with raw cotton, and, after satur-

ating the cotton with *Solution of Iodine*, swab out the fistula thoroughly with it, repeating the application every two days.

Perineo-vaginal Fistula.

This form of fistula of the vagina opens through the perineum externally. It may be caused from traumatic injuries to the parts, or be left after operations for lacerated perineum, on account of a failure of adhesion of a part of the surfaces which have been brought in contact. The treatment is similar to that in cases of blind vaginal fistula. Granulations must be stimulated till the fistula is closed.

Peritoneo-vaginal Fistula.

This is rarely seen. It sometimes may result from the leaving of a drainage tube too long after operations for ovariotomy. The fistula communicates from the vagina to the peritonæal cavity, and allows of the introduction of atmospheric air into this cavity, and through it portions of intestine may protrude into the vagina.

The Treatment consists in returning the intestine and stitching the fistulous walls together in the vagina after freshening the vaginal membrane around the fistula, or arousing adhesive inflammation by stimulating applications.

Remedies.

Cal. carb., *Merc. iodid.*, *Ars. alb.*, *Phytolac.*, *Nux*, etc., may be indicated in this class of cases, on account of the condition of the general system homœopathically indicating their use. Warm vaginal injections of *Calendula water* are usually of benefit, as well as being pleasant to the patient.

CHAPTER XLVII.

LACERATIONS OF THE CERVIX UTERI.

Lacerations of the cervix uteri in labor are of somewhat frequent occurrence, and are, doubtless, one cause of the arrest of normal involution of the uterus after confinement, and, consequently, one cause of sub-involution of the organ and of Areolar hyperplasia of the uterus as well. Their agency in the causation of these conditions has until quite lately been ignored or overlooked, and they are still but imperfectly appreciated by the mass of the profession.

Lacerations of the cervix are liable to occur in cases where there is a rigid os uteri in labor, where drugs are administered to hasten delivery without giving sufficient attention to causing relaxation of the os; also, in the use of forceps without first seeing that the os is fully dilatable, or in performing pedalic version and delivery under the same circumstances.

One object of this chapter will be accomplished if we can arrest the attention of the student so as to impress upon his mind the necessity of attention to the dilatability of the os, before giving *Secale cor.* to increase labor pains, or using forceps or resorting to pedalic version (except in extreme cases) until the os uteri is fully dilated or dilatable. In this way much may be done to prevent the sad consequences resulting from disregard of these precautions.

Lacerations of the cervix uteri may be slight or extensive. They may occur singly or multiple. The laceration may implicate the bladder and cause cervico- or, as it is sometimes called, utero-vesical fistula, or it may exist upon the posterior or lateral aspect of the organ, and affect the peritonæum so

as to cause Puerperal peritonitis or pelvic cellulitis; or it may be slight and cause little trouble apparently for a time, until it is discovered that chronic metritis or Areolar hyperlasia of the uterus, or hypertrophy or induration of the cervix are present, and the fact is evident on physical examination that these conditions were caused by laceration of the cervix in confinement.

The fact that such results follow laceration of the cervix has caused me to be opposed to forcible, rapid dilatation of the cervical canal, or of incising it, as has been the practice of some upon (as it seems to me) every slight pretext. The tearing of the tissues with instruments, or incising them, is little less objectionable than their accidental laceration. Still, incision of the cervix and scarification of this part is a favorite and constant practice with some. I am glad I never fell into this practice, which seems to me more and more objectionable the more experience I have in the treatment of the diseases of women.

Prof. Emmet,* who has paid more attention to this subject than any other physician living, so far as I can learn, says:

"During the Autumn of 1862 I accidentally recognized the importance of this lesion, and at once instituted a surgical procedure for its relief. The operation then devised has stood the only true test—that of time—and has been but little modified. From the above date I have continued to operate frequently, in both public and private practice.

"February 8, 1869, I described the operation fully in a paper† read before the Medical Society of the County of New York. Before the same society, on September 28, 1874, I presented an article‡ on 'Lacerations of the Cervix Uteri as a frequent and unrecognized cause of disease.' This last

*Emmet's Prin. and Prac. of Gynæcology, p. 445.

"†'Surgery of the Cervix,' American Journal of Obstetrics, February, 1869.

"‡American Journal of Obstetrics, November, 1874.

paper was soon after translated by Dr. M. Vogel, and published in Berlin, June, 1875. Prof. Breisky, in the following year, published a favorable criticism* on the paper translated by Dr. Vogel, together with the report of fourteen cases successfully treated by him.

"Etiology of Lacerations of the Cervix Uteri.

"Previous to collecting the statistical material for this work I had recognized and treated two hundred and nineteen cases of lacerations of the cervix in my private hospital. This shows that a little over sixteen per cent of all women who had passed under my observation, and had been impregnated, were found to have had laceration of the cervix. This proportion will seem to many a large one, and yet, as the record extends over thirteen years, doubtless many cases during that period were not recognized. It was fully six years after my first operation before I had gained experience enough to detect this lesion under its varied forms, while the treatment itself was not perfected until several years later.

"To arrive at more definite results as to the frequency of this injury I have taken from my case-books the records of the last five hundred fruitful women coming under my care in private practice. The result is reached that 32.80 per cent of all women under observation, who had been impregnated, and had suffered from some form of uterine disease, were found to have laceration of the cervix. It is, of course, possible that this increase in the percentage is due in a measure, but not wholly, to the fact that cases were sent to me by general practitioners. But in few instances had there been a diagnosis made.

"The average age of puberty for women who had lacerations was, as will be seen by table XXXIII, 14 years, and

"*Zur Würdigung des Narbenektrodiums des Muttermundes, und dessen Operativer Behandlung nach Emmet, von Prof. Briesky in Prag. Wiener Med. Wochenschrift, No. 49, bis 51, 1876.

TABLE XXXIII.—Seat of Lacerations of the Cervix Uteri.

	AVERAGE AGES AT			Total number for each lesion	Percentage for each lesion	CHARACTER OF THE LABOR WHEN INJURED, AND MODE OF DELIVERY.									Since last pregnancy, in years
	Puberty	Marriage	First consultation			Natural	Rapid	Tedious	Forceps	Turning	Craniotomy	Large children.	Miscarriages	Criminal Abortion	
To the left side	14.00	21.26	31.98	67	40.85	2	21	23	10	4	.....	6	.....	1	4.80
To the right side	13.78	21.52	33.60	23	14.02	2	5	5	4	.....	.....	5	1	1	5.30
Through both sides	14.00	21.04	34.62	50	30.48	9	7	17	6	4	.....	2	.....	5	5.91
Backward	15.00	22.25	42.50	4	2.38	2	1	1	.....	.....	.....	.....	.....	.....	10.50
Circular	13.81	21.60	30.81	11	6.09	2	3	4	.....	.....	1	.....	.....	1	4.21
Not stated	14.44	21.44	33.33	9	5.48	4	1	.....	.....	1	.....	.....	1	2	2.97
Total number	.....	.....	.....	164	.....	21	38	50	20	9	1	13	2	10	.....
Average or percentage	14.00	21.47	33.32	.....	.....	12.74	22.56	30.48	12.19	5.18	.06	7.92	1.21	6.09	5.21

at marriage 21.47 years. These averages approximate so closely to those of all women under observation, that it is evident neither the time of puberty nor of marriage had any bearing on the cause of the lesion. These women first came under my observation at about the average age of thirty-three years and four months, the greatest deviation being for those who had suffered from backward laceration. While the number of cases is too small to give any importance to the circumstance, it is not entirely an accidental one, since it is a form of laceration which would produce the least disturbance, and then only later in life as the vagina becomes changed in shape. In one of the columns of the table will be found the number of the different forms of laceration, and their relative frequency. It will be seen that the injury on the left side is the most common, and double laceration the next. To establish with some degree of accuracy the character of the labor most likely to result in laceration of the cervix, would be an important advance. I endeavored with great care to ascertain from each of these women the prominent features of the labor in which it was supposed the accident occurred. Notwithstanding I had so intelligent a class to deal with, I feel that the information gained is to be accepted only as approximating to the truth. The testimony of a patient as to her labors, and particularly the first one, to be of value, must be confirmed by careful observation on the part of the attending physician. From *a priori* inference I had been prepared to learn that rapid labor was the most common cause of laceration of the cervix. The contrary, however, has proved to be the case, as more than thirty per cent of the lacerations were attributed to tedious labor. This proportion would be greatly increased by the addition of the forceps cases, which properly should be placed under the head of tedious labor, since, we may assume, forceps were only employed for delivery after the labor had been prolonged. It will be noted that two instances of laceration occurred from mis-

carriage, and ten as a consequence of criminal abortion. Since my attention has been directed to this subject, I have found the cervix lacerated in every instance where the patient admitted the fact of exposure to malpractice. And my suspicions have been verified several times by the patient acknowledging the charge which I felt justified in making whenever I detected a laceration produced by discharge of the uterine contents before full term. It can readily be understood that laceration of the cervix would occur under these circumstances as well as in rapid labor where the parts are so quickly dilated; but as the result of a tedious labor, it is not so clear, since sloughing would then be a more likely consequence. If the delay was in the first stage of labor, with the os tardy in dilating, a condition of the soft parts might be established which would readily admit of the occurrence of this accident. But, as a rule, the effect of a tedious labor would scarcely be asserted until long after full dilatation of the cervix had been accomplished. I can not divest myself of the conviction that rapid labor will be found, on further observation, to be a far more important factor in causing this lesion than has been indicated by this record. The proportion of rapid labors, as given, is much more likely to be correct than the contrary. For it is a very natural error for a woman to exaggerate the time, and to regard a labor as tedious, although it may have been a natural one in every respect.

"We will now complete the consideration of Table XXXIII by reference to the last column, in which is recorded the average duration, or the interval, since the last pregnancy. The average length of time in all forms of laceration was found to be rather more than five years. The relative duration of this interval, with respect to any one special form of laceration, is not sufficiently marked for comment, with the single exception of the backward lacerations. In this form the state of quasi-sterility had existed for twice

the length of time given for any other form of the injury. The proportion of these cases, as we have already noted, is smaller than any other, but the sterility was naturally produced by the greater or less degree of retro-version, which existed as a result of the laceration extending into the posterior *cul-de-sac*, and causing contraction of the parts or tissues located posteriorly.

"Menstrual Changes.—The average duration at puberty of the menstrual flow for the 164 women who suffered from laceration of the cervix was 4.78 days, while that on the general average for 2,080 women was 4.82 days. These averages are essentially the same, and, as there was no marked difference in the early history of menstruation, either as to the degree of pain or regularity, it is evident the condition at puberty would furnish no indication of subsequent liability to this lesion.

Diagnosis.

"Lacerations through the neck of the uterus are of more frequent occurrence than has been supposed. In fact, I doubt if a woman can give birth to her first child without partial laceration taking place; but if it is slight it heals rapidly and causes no difficulty afterwards. Even most extensive tears are seldom recognized at the time of labor. The tissues are then so soft that, unless the rent has passed beyond the cervix into the vagina and connective tissues, it can scarcely be detected by a mere digital examination. Indeed, the occurrence of the accident, in all probability, will not even be suspected, unless an unusual amount of hemorrhage should exist.

"Lacerations in the median line are the most frequent, and those through the anterior lip are more common than those in the posterior one. When in the median line and confined to the cervix, these lacerations generally heal rapidly, leaving scarcely a cicatricial line to mark their course. This is due to the fact that the necessary recumbent position of

the patient, which is enforced for some time after labor, keeps the raw surfaces in close contact by the pressure of the lateral walls of the vagina until they have become firmly united.

"No serious consequences, therefore, are likely to follow this accident through the anterior lip of the uterus, unless the rent passes beyond the cervix through the septum into the bladder. Even when most extensive, the line may heal throughout, as there will have been no loss of tissue from sloughing. This will frequently be the result if proper attention has been paid to cleanliness, by the use of vaginal injections of warm water, so as to prevent phosphatic deposits from the urine on the raw surfaces.

"But, as a rule, when the tear has been so extensive, a small vesico-vaginal fistula will be left in front of the cervix. Or the laceration through the neck will heal from above downward, and leave at the bottom of the fissure a sinus, along which the urine will escape from the bladder into the uterine canal. Under the proper head this form of fistula will be treated of at length. Lacerations through the anterior lip generally occur in women who have borne a number of children, and in whom there exists great relaxation of the abdominal walls, and anterior obliquity of the uterus.

"Lacerations through the posterior lip unite as readily, and the accident may not be suspected, unless the fissure should have extended sufficiently into the posterior *cul-de-sac* to set up an attack of inflammation. When cellulitis occurs at this point, and from this cause, it always induces a most intractable form of retro-version. Even when a laceration has been superficial on the vaginal surface, the cicatricial band, felt as a cord, will contract, and so shorten the *cul-de-sac* as to render it impossible to adapt any form of pessary to it. To restore the uterus to its natural position, a surgical procedure has to be resorted to for the removal of this band, often with most unsatisfactory results.

"The history of the cases suffering from this form of laceration would indicate that the occurrence of the injury is due to the position of the occiput towards the sacrum. It is very rare for bad effects to remain after laceration either backward or forward, and when they do occur it is exceptional. When, however, the laceration is in a lateral direction, and extends beyond the crown of the cervix, a condition at once arises which will defeat all the reparative efforts of nature. In practice, therefore, we have to deal chiefly with the consequences of lateral lacerations, and the effects are more marked when the lesion is double than when confined to either side. Whenever the rent has extended to the vaginal junction, or beyond, there will exist a tendency for the tissues to roll out from within the uterine canal as soon as the woman assumes the upright position. The posterior lip of the cervix naturally catches on the posterior vaginal wall, as the uterus after a recent delivery is larger than natural, and lower in the pelvis from its increased weight. When the flaps formed by the laceration are once separated, their divergency becomes increased by the anterior lip being crowded forward in the axis of the vagina. This will be towards the vaginal outlet in the direction presenting the least resistance, while the same force naturally crowds the posterior lip backwards into the *cul-de sac*. From thus forcing the flaps apart a source of irritation is at once established, which arrests the involution of the organ. The angle of laceration soon becomes the seat or starting-point of an erosion, which gradually extends over the everted surfaces. With the increased size and additional weight of the uterus, induced by congestion, the tissues gradually roll out as far as the neighborhood of the internal os. As the laceration frequently occurs in consequence of rapid labor, or from its having been necessary to apply the forceps or to use traction, the perineum is frequently ruptured.

"Sometimes the laceration heals while the woman remains

in bed after her labor, but when she gets up the surfaces soon become the seat of an extensive erosion, which bleeds readily. As the uterus begins to increase in size a profuse cervical leucorrhœa follows, and, in consequence of a frequent show, the patient seeks relief. She will state her inability to stand with comfort, complaining of a continual backache, with pains down her limbs, sometimes irritation of the bladder, and, as a rule, marked nervous disturbance.

"Until recently, this condition of laceration was universally mistaken for ulceration, and sometimes for the early stages of epithelioma, and for corroding ulcer of the uterus. To heal this 'ulceration' would long baffle every mode of treatment, or, if any improvement took place in the patient's condition after a protracted rest in the recumbent position, a relapse would follow again and again, with every attempt at exercise. Such a case passed from one physician to another, until eventually the leucorrhœa ceased, and the profuse menstruation diminished as the surfaces, from the frequent application of caustics or the cautery, became cicatricial in character. Nevertheless, a woman in this condition gradually became a confirmed invalid while the hypertrophy of the uterus remained, and from impairment of her general health the nervous element became most prominent.

"When the laceration has been complete, but confined to one side, the rolling out is not so extensive, nor is the apparent size of the cervix so large as in the previous condition, but it is difficult often at first sight to detect the injury. A partial obliquity of the uterus in the pelvis is thus produced by crowding the cervix towards the uninjured side, and this surface and the flattened lacerated portions may present a common plane to the posterior wall of the vagina on which it rests. As the flaps separate, the two edges and the uninjured side form a tripod, with two legs shorter than the third one, so that the fundus must necessarily be tilted toward the injured side. Cellulitis is a most common result of this

accident, and is generally situated between the folds of the broad ligament on the side of the laceration. The effect of the cellulitis is to shorten the ligament, and the fundus will be fixed towards the injured side. This causes the parts which have been torn down to the vaginal junction, or beyond, to project into the passage, and as they are covered by a reflexion of the vaginal tissue over this part of the uterine body, just above the terminating point of the laceration, the effect to the eye is a length of cervix on that side equal to the uninjured portion. The apparent os is always more patulous than in health, and this condition is readily accounted for from the evident existence of disease within the uterine canal. Moreover, the deception is still maintained by the passage of the sound in the median line to the fundus, for its use gives no indication of the true condition. The explanation is, that the sound passes through a patulous os, along the angle of the rent on one side of the cervix to the horn of uterine canal on the opposite side. So deceptive is the condition that I have been frequently consulted as to the propriety of amputating an enlarged or enlongated cervix, when if a small portion only of the apparent enlargement had been removed the peritonæal cavity would have been opened. The cervix is never so large as it seems to be, and the line of junction with the vagina is equally deceptive. It is, therefore, a wise procedure, in any doubtful case, to place the patient for examination on her knees and elbows. On the introduction of the speculum the vagina becomes distended by atmospheric pressure, and by the aid of gravity the uterus is brought into its proper position. The true line of junction with the vagina will be then well marked, and only the actual length of the cervix will project above the vaginal surface. In a case of laceration on one side, extending to or beyond the vaginal junction, the fissure will be detected without difficulty in this knee-elbow position. By the weight of the uterus its axis in the pelvis will be brought in line to cor-

respond with that of the vagina, so that the depth of the cleft through the tissues can be appreciated at a glance."

Treatment.

As before remarked, these lacerations sometimes exist, and are not discovered for a long time. The normal healing process is ordinarily sufficient to cause healing of the lacerated surfaces, either by adhesion of the opposing tissues or by the formation of mucous membrane over them. When the lochia is continued three or four weeks, it is advisable to make a physical examination to discover if laceration of the cervix be the cause of the discharge, and, if so, we may apply some stimulating local application to the unhealed lacerated surface. A solution of *Iodine*, 10 grs. to the oz., is perhaps as good an application as can be made, using a soft brush to apply it, and making an application every three days. This is ordinarily all the treatment required.

The operations performed by Prof. Emmet in cases of laceration of the cervix are, to my mind, objectionable. With high regard for the eminent service he has rendered the profession and humanity, we still believe he has allowed his zeal in this direction to carry operative procedure further than the necessities of these cases require. The cutting away of some of the tissue of the cervix in order to make a fresh surface, causes loss of substance, which is very objectionable in its relation to future gestations and deliveries, by reason of the impediment which is thereby offered to the free relaxation of the muscular fibers surrounding the os and cervical canal. The cicatrix formed by the union of the lacerated tissues of the cervix is some impediment to the delivery of children, in future pregnancies at best; and the cutting away of any part of them and then securing adhesion, can but increase the difficulty. We do not appreciate the need for these operations. They can do little to lessen the hypertrophy or Areolar hyperplasia of the uterus,

sometimes very largely caused by them, but not necessarily remedied when the laceration which is already healed is cut and stitched together.

Rest, good diet, cleanliness, pure air, etc., are the necessities in these cases, combined with such remedies as are homœopathically indicated by the symptoms in each particular case. These suggestions apply especially to recent cases. Cleanliness of the parts and healing is to be secured by semi-daily injections into the vagina of tepid castile soap and water, followed by *Calendula* water.

The chronic case (if found healed) is certainly better let alone, so far as cutting is concerned. The resulting induration, ulceration, hypertrophy or Areolar hyperplasia, may demand treatment; but as a laceration, we are of the opinion it needs none.

CHAPTER XLVIII.

DISPLACEMENTS OF THE UTERUS.

THERE is no disease to which women are liable of so much importance, and which, in my opinion, is so poorly understood (excepting *cancer* and *phthisis*), as *Uterine displacements.*

As this is read by the general practitioner, I feel sure he will at first be disposed to differ with me. He will at once say that it is very easy to diagnose cases of displacement, and he may be sanguine enough to think he knows how to treat them. This is likely to be the case if he has had but little experience. Most young physicians are sanguine on all departments of medicine, but especially so upon the department of "Diseases of Women." And if there is one disease they imagine they understand it is displacements of the uterus. I hope their opinion is well founded, for they will have need enough for their knowledge in actual practice.

The student should first familiarize himself with the normal condition of the uterus and its appendages by dissection, after having studied thoroughly the anatomy of the *pelvic* and *abdominal* organs. I say abdominal organs, for there is as much depends upon a knowledge of the anatomy of the *abdominal viscera* in diagnosis and treatment as there is upon an understanding of the anatomy of the pelvic viscera.

Just here, to my mind, appears the error into which so many fall. They fail to take into account the influence which the *abdominal organs* exert in *producing* displacements; neither do they take it into account in the treatment. Hence, many failures result where success might be just as

well achieved, if the case was properly understood. They seem to proceed as if there was a division membrane, like the diaphragm, between the pelvis and abdomen. I was told not long since by a medical gentleman of some pretensions that there was such a condition of the anatomy of the parts that the abdominal viscera never could press upon the pelvic. This he stoutly maintained against the expressed views of several medical gentlemen then present. We can only wonder where he obtained such erroneous ideas. Still, I have seen very many physicians who practice in these ailments as if they believed in this kind of anatomy of the parts.

The ordinary practice in these cases seems about as absurd to me as the former indiscriminate use of venesection, which is now so generally abandoned. I hope that within the next decade the universal use of pessaries will also be given up (as I believe caustic applications will also be), which have had their day of almost universal use by the old school (would that homœopaths had kept entirely clear of their employment).

Some homœopaths have gone to the other extreme, of depending entirely upon internal remedies in the treatment of displacements. This practice is about as unwise as the other. Great good is accomplished with the use of homœopathic remedies in this class of cases, by relieving congestion and inflammation, and also in giving tone and strength to the tissues of the uterus and its appendages. They may also do very much to aid in the treatment of displacements by restoring the normal functions in the liver, kidneys, spleen, etc., which may in some cases be remote causes of the difficulty. But remedies alone are not adequate to rectify a very large proportion of the displacements of the uterus with which we meet. I have taken pains to test this matter, and have had very good opportunities to do so, and did so in good faith, desiring, if possible, to cure without mechanical appliances of any kind.

But I can not commend the reliance upon remedies alone;

but claim for them the credit of being very great *aids* in the cure of displacements. I very much prefer, however, the physician who depends upon remedies alone to the one who relies wholly upon pessaries (especially the great number of hard pessaries which have been invented and used), as they do very much injury in very many cases, and good only in a very few; whereas, remedies are a benefit in all cases when properly selected. I have made a cut to represent the normal position of the pelvic viscera and small intestines in the abdomen (see Plates I and II).

Plate II represents the bladder as partially distended. When empty the uterus is inclined a little more forwards in the pelvis than is represented in the cut. The vagina and rectum are represented as distended partially, that they may be understood; but the student must recollect that ordinarily the folds of the vagina fill it up, though the vaginal walls are loose and flabby; and he will also bear in mind that sometimes the rectum is more distended, at others empty and collapsed.

He will please note that a line drawn from the promontory of the sacrum to the lower portion of the pubis would intersect the cervix uteri at a point just above the vaginal juncture; (he will also notice) that the os uteri is directed backwards and downwards, towards the hollow of the sacrum; that by taking a pencil and making a line from the fundus of the uterus to the os, through the uterine cavity, and thence through the centre of the vaginal canal to the os vaginam, he would have the arc of a circle.

It is always well to bear in mind this circular shape. He will also please notice that when the rectum is distended it will press against the cervix, that when the bladder is distended it presses the uterus backwards; also, and most important of all, that the small intestines rest in contact with and upon the uterus and bladder.

Now, in case the uterus is displaced, the intestines also

become displaced, and fall into the space normally occupied by the uterus. It is easy by studying the Plate to see how women, by compressing the upper portion of the abdomen with corsets and dragging it down with the weight of clothing worn by many fastened about the waist, have pressed the intestines down upon the uterus, and thereby displaced it. Now, if the physician forcibly replaces the organ and presses it upwards with pessaries in the vagina, the uterus is placed between two pressures, one from above, another from below. This double pressure would likely produce a *flexion*, or a bending of the organ upon itself, or cause inflammation. Now, it has for many years appeared to me to be a rational and philosophical practice, to lift up the abdominal viscera by some means, and give the uterus room to occupy its normal position. If this is not sensible and philosophical practice, then my judgment is entirely wrong. Holding this view, I deem it of vital importance to study in the outset how this can best be accomplished. Why this idea has been so universally ignored by writers upon the diseases of women I can not conceive. The great aim seems to have been to demonstrate the advantage of some particular pessary to press the uterus forcibly into position, irrespective of the superincumbent weight resting upon it.

Dr. Emmet* seems nearly to have grasped the idea, which I had already published in 1878 in the Cincinnati *Medical Advance*, viz.: The influence of atmospheric pressure in maintaining the uterus *in situ*. He says: "I often give my patients instructions to assume the position on the knees and elbows at night, and after taking out the instrument [pessary, I suppose, though he does not mention, either directly or indirectly, what he means], to open with the fingers the outlet of the vagina while in this position, so that the uterus may be carried well up into the pelvis by atmospheric pressure."

* Emmet's Prin. and Prac. Gyonæcology, p. 129, 1879.

Well, why not open the vagina while the patient is erect? Does not the atmosphere press with as much force upwards as downwards? Now, it is clearly the result of taking off the weight of the abdominal viscera by the knee-elbow position that enables the atmosphere to act so forcibly upon the uterus in its replacement; but he gives no hint of this, nor does he or any one else mention that lifting off the abdominal viscera by position, causing them to draw away from the pelvis, thereby creating a partial vacuum in the lower abdomen, is the main cause of such favorable results from atmospheric pressure. I therefore claim this idea of the production of a partial vacuum, by lifting up the abdominal viscera, in connection with atmospheric pressure as a support to the uterus, as original, in the treatment of displacements, though Dr. Sims, in 1854, in a public lecture, and later in his work on surgical diseases of women, presents the idea of atmospheric pressure aiding in the reposition of the retroverted uterus when the patient is placed in the knee and elbow position. He fails to mention that thereby a partial vacuum is produced by the weight of the bowels falling forwards and upwards while in this position.

Now, if the uterus is pressed into position, as both Profs. Emmet and Sims say it is, while the patient is in the knee and elbow position, and the vagina is dilated for the admission of air, why not lift up the abdominal viscera, create a partial vacuum while the patient is erect, and let the atmosphere act as a pessary? If not, then why not?

Prof. H. F. Campbell, of Georgia, has invented a glass tube similar to a glass speculum, bent at its upper extremity for the purpose of admitting atmospheric air in cases of prolapse; but I find no mention made of the necessity of conjoining with its use some means to lift up the abdominal viscera, and leave a partial vacuum into which the uterus might readily rise while the patient is in the erect position.

All must concede that the atmosphere presses upwards

with as great a force as downwards; and if we can maintain the abdominal viscera in a position upwards towards the chest, as is effected while the patient is in the knee-elbow position, we may have the assistance of the atmosphere at all times, if we will but admit it into the vagina. How to accomplish this is the next question.

Herein lies the difficulty; but it must be accomplished, or little success will attend our efforts to cure many cases of displacements of the uterus. The gynæcologist must give to this matter personal and careful attention in each patient; and he must use ingenuity in the application of means to various cases, and secure the co-operation of his patient as well.

There are patients with small abdomens, especially in the spare built, which may baffle the most experienced and skillful, in which instances rest in the recumbent position upon the side, with a pillow placed under the hips, and a small speculum in the vagina (a part of the time), will be the only alternative; but with those whose abdomens are of some size an elastic abdominal supporter (called by my friend, Prof. Ludlam, *abominable supporter*, and sneered at by many others) is the efficient means to accomplish the lifting of the abdominal viscera off from the uterus, and leaving space for it to occupy its normal position. An improvement of the "London Abdominal Supporter," which I have had made by Max Wocher & Son, of Cincinnati, I find the most desirable, except in cases of extremely pendulous abdomens, when the silk elastic band is preferable. (See Plate XII.)

In adjusting my supporter care must be taken that it is not too large. It should be small enough so that when adjusted, nearly the whole length of the elastic straps passing around the body is required, as otherwise we have not sufficient elasticity to make them comfortable. The lower straps must always be buckled tighter than the upper, so as to cause pressure upon the extreme lower part of the abdomen,

and as the straps are tightened to lift the abdomen upwards. This necessitates the discarding of corsets and all clothing fastened about the waist, having it supported from the shoulders instead. Conjoin with this the insertion into the vagina during the day, for an hour or two, of a round speculum, having the knees widely separated, with the patient reclining.

This makes up the plan of treatment which I have successfully followed for about twenty years, using means to replace versions, prolapse, and flexions, which I will mention in connection with the special description of each, occasionally resorting to the inflatable rubber pessary in cases where we can not secure the co-operation of the patient in the former mode of treatment.

What I have written I intend as simply a statement of the general principles of treatment applicable to all displacements, and inflammation of the uterus or cervix as well; yes, and I may say in cases of inflammation of any of the pelvic viscera, but *not* in cases complicated with peri-metritis or peritonitis, as in these cases the pressure of the supporter (elastic though it is) can not be endured; and we must resort to the recumbent position till the tenderness is removed.

I can only account for the contemptuous remarks which have been made against abdominal supporters on the supposition that where they have been recommended it has been left to the patient to purchase and adjust them, and the patient, failing to appreciate the object of their use, has made of them *abdominal compressors*, instead of *abdominal supporters*, in which case the term *abominable* is very correctly applied by Prof. Ludlam, as compressing the abdomen *in its entirety*, or from above, would tend to produce displacement, if it did not exist, and prevent a cure where it already existed. But the fact that their improper use would do harm, does not prove that their proper use could do no good. If it did, then on the same theory, we could condemn

every mechanical appliance in *gynæcology* and *surgery*, as well as every remedy in the *materia medica*.

Supports of the Uterus.—The uterus is made, by an All-wise Creator, freely movable in the pelvis and lower abdomen to subserve the purpose of gestation; for this reason the folds of peritonæum, called the broad ligaments, are loose and freely movable. They, in a state of health, offer no impediment to the rise of the uterus in the abdomen when enlarged from pregnancy or other causes, and can offer little resistance to its displacement downwards, backwards, or forwards, though they in some measure act as stays to prevent lateral displacement. These, with the vaginal walls and the connective tissue, have been considered the supports of the uterus. They appear rather flimsy, to say the least, and I never felt satisfied that I understood the supports of the uterus till I thought of the influence of atmospheric pressure in sustaining it in its normal position. Whether right or wrong, I present the idea to the profession, hoping its truth or falsity will be demonstrated more fully by others. Of the correctness of the plan of treatment of displacements on the general principles, which I have stated I have no doubt, having verified it by twenty years of trial.

The weight of the abdominal organs must be removed in some manner from pressing upon the uterus, or it is very evident the supports of the uterus will give way. Normally the folds of peritonæum covering the intestines with the connective tissue, serve to maintain their weight; but when pressed upon from above with corsets or considerable weight of clothing, the folds stretch out and the intestines rest as a dead weight upon the uterus and bladder. Their *treatment* has been sometimes better than the *theory* regarding them.

Physicians have been in the habit of introducing enough atmospheric air, I judge, by their frequent use of the speculum and by means of various pessaries used; and when they have made the patient recline most of the time, they

have met with some success. They were unwittingly using atmospheric pressure, and gave the credit to the pessary.

The beneficial effect of atmospheric pressure upon the engorged capillaries of the uterus and vagina present in most cases of displacements of the uterus is well described by Professor Emmet.* He says, after speaking of the advantage of the knee-elbow position, and the effect of atmospheric pressure in replacing the uterus when the patient is in this position, with the vagina dilated to admit the air, "that the vessels are to a great extent emptied by the pressure of the atmosphere and by gravity. The pressure also is uniform and not confined to a portion of the tissues, as would be the case with an instrument. But more particularly from the natural elasticity of the pelvic tissues, there would be no persistent traction exerted on the veins to compress them, since this same elasticity would soon establish an equilibrium by expelling a sufficient quantity of air from the vagina."

The relief of this capillary congestion is one of the objects to be attained in the successful treatment of displacements.

The Cellular Tissue.—Without doubt the cellular or connective tissue normally exerts considerable influence in sustaining the uterus *in situ*. In displacements this tissue is more or less torn or stretched, and cellulitis is not an infrequent complication of displacements. Very often, however, when the cellulitis is mild in degree, it is overlooked; but its results are manifested in adhesions which in chronic cases are so often found, and which very materially interfere with the means used to replace and maintain the organ in position, and sometimes offer resistance it is impossible to overcome. In other cases, the efforts at replacement break loose the attachments formed, and cause a new attack of cellulitis. Of course, it is not to be expected that atmospheric pressure will be sufficient to tear loose the uterus where these attach-

*Emmet, Diseases of Women, p. 129.

ments have formed; but it may sustain the uterus after it is replaced by other means, if the weight of the abdominal viscera is removed; and after a time the cellular tissue will become healed, and attached in its normal position.

Symptoms.

There are certain symptoms which are generally indicative of displacements of the uterus, and which should lead the physician to make a physical examination to determine the nature of the difficulty, which may also be produced by inflammation, in part, it is true; but when taken in connection with the absence of differential symptoms of heat, fever, etc., present in inflammation, may be quite characteristic of displacements. I will mention pain in the pelvis, a sense of weight or bearing down in the pelvis and lower part of the abdomen, pain in the small of the back, constipation, painful and frequent micturition, pain in the iliac region, nausea, impaired appetite and digestion, painful menstruation, colicky pains in the abdomen, etc., as among these symptoms. When we have a considerable number of these symptoms present in the case, whose history shows that it has been somewhat chronic (and in some recent attacks), we may conclude that there is present some displacement of the uterus, and feel justified in making a vaginal examination to confirm the diagnosis, and the better to determine the means to be used for its relief.

The diagnosis of the various forms of displacement I will mention under their proper heads.

Etiology.

Falls, jumping from a carriage or from any elevation, lifting heavy weights, constipation, neglect to empty the bladder at suitable intervals, tumors in the walls of the uterus or in its cavity, inflammation of the organ, pregnancy, rising too soon after confinement or a miscarriage, unskillful attention in confinement, the compression of the abdomen with corsets

or otherwise, great fatigue, general debility, etc., etc., may tend to cause uterine displacements.

Treatment.

General principles of treatment have been mentioned in the general remarks I have made upon displacements, as regards the necessity of taking off any superincumbent weight resting upon the organ, and the advantages of atmospheric pressure when conjoined with proper position of the patient, so as to take off the weight of the bowels at the same time, or using means to keep them up in the abdomen till their attachments grow strong, and capable of holding them up. I will now mention some other points in treatment which are applicable to all cases of displacement, leaving the discussion of the treatment of special forms, for consideration under their several heads. *First*, rest is an important injunction. Repeat it often. *Secondly*, the use of the warm hip bath, and warm water vaginal and rectal injections, repeated about twice a day, are of general application and benefit. *Thirdly*, keep the feet and limbs warm if possible, the mind quiet, the digestion and appetite good. Attention to these points will be of use in every form of displacement. Generally *Nux*, *Bell.*, *Acon.*, *Sepia*, *Hyosc.*, or *Cim.* are indicated remedies.

Aconite, for nervousness; tenderness; fever, etc.

Bell., for the stupid, tired feeling; pain in forehead; pressing pain in the bladder, etc.

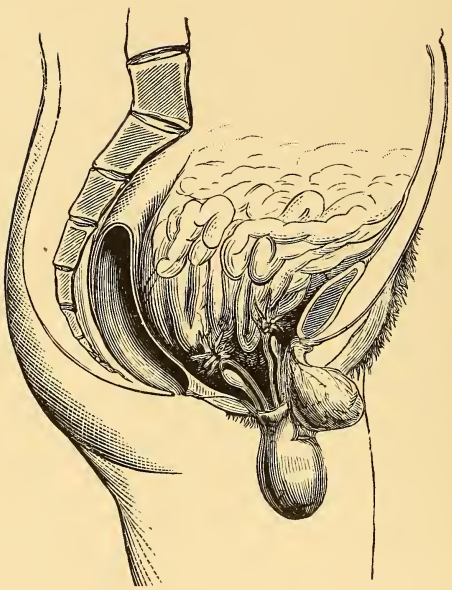
Cim., for pain in the ovaries.

Hyosc., for despondent symptoms; disposition to weep; loss of energy; hysterical symptoms, etc.

Nux, for weakness; loss of appetite; constipation; pain in back, etc.

Sepia, for pain in the loins and back, accompanied with a leucorrhœal discharge.

Plate XVIII.



COMPLETE INVERSION OF THE UTERUS.

CHAPTER XLIX.

DIFFERENT FORMS OF DISPLACEMENTS OF THE UTERUS—INVERSION OF THE UTERUS.

Displacements may be *downwards*, *backwards*, *forwards*, *sidewise*, or *upwards*.

Downward displacement of the uterus is termed *prolapsus uteri*. If complete, so as to appear externally, it is termed *procidentia* (though the terms prolapse and procidentia were formerly used as synonomous).

The displacement of the fundus backwards into the hollow of the sacrum is termed *retro-version*, and when the uterus is bent backwards upon itself in the form of a half circle, it is termed *retro-flexion*.

When the fundus is bent heavily forward against the pelvis, and somewhat prolapsed also, the os being carried backwards into the hollow of the sacrum, it is termed *ante-version*.

When bent upon itself forwards, it is termed *ante-flexion*.

When tipped to either side, it is termed *lateral version*.

When carried too high in the abdomen, it is termed *upward displacement* or *elevation*.

When turned inside out, it is called *inversion* of the uterus.

Inversion of the Uterus.

Inversion of the uterus may be partial or complete. (See Plate XVIII.) In partial inversion the fundus is turned into itself. In complete inversion, the entire organ is turned inside out, or completely inverted. In order that inversion may take place, it is necessary that the organ be enlarged. In its normal and unimpregnated state it can not become inverted. Inversion will not often occur in the practice of

the careful, skillful physician; but he may be called upon to treat a case which has resulted from the carelessness or ignorance of some one else. As a result of tumors in the fundus it may become inverted in occasional instances, although the patient has never been pregnant. B. Langenbeck* exhibited the inverted uterus of a woman who had never been pregnant. On the inverted fundus was seated a fragile sarcomatous, heterologous growth of broad basis the size of a walnut. Inversion of the uterus is most likely to result in the puerperal state after delivery, while the uterus is enlarged in its entirety, and the tissues are flabby.

Inversion of the uterus may be acute or chronic. In the acute or recent state, while the os is dilated, it is of the utmost importance to recognize the difficulty and restore the organ immediately, as in the chronic state it is very hard to replace, and the patient is liable to die from shock or hemorrhage in a very short space of time after its occurrence.

There are cases, however, where very little disturbance is produced in the system by inversion, owing usually, I think, to the anæmic condition of the patient, and want of nervous sensibility. A woman once walked into my office with a completely inverted uterus dangling between her limbs (thinking it to be a falling of the womb), and stated that she was attended by a midwife in confinement about three weeks previously; that before she rose from her bed this tumor began to appear, and the midwife had pressed it up into the vagina several times, but it would not stay. On examination I found the case to be one of complete inversion of the uterus, with the necessary prolapse of the bladder and vagina. I proceeded to replace the organ at once, which I succeeded in doing without much trouble in less than an hour. I know that subsequently she had two children; but for the last ten years I have lost sight of her.

Some authors represent complete inversion as occurring

*Med. Centr. Zeitung, 1860; also, in Barnes, p. 623.

entirely within the vagina. Such cases must be very rare. Generally, the uterus is very large in cases of inversion, and as it is inverted and is pressed downwards, it emerges from the os vaginam and drags with it the vagina and bladder, the broad and round ligaments, the ligaments of the ovary, and in some instances portions of intestine into the cavity of the inversion. The rarity of the difficulty may be learned from the remarks of Dr. West.* He says: "No instance of uterine inversion in the recent state has come under my observation." "The Annals of the Dublin Lying-in Hospital and those of the London Maternity Charity illustrate the rarity of the accident, since it was not once met with in a total of 140,000 labors."

Etiology.

It is ordinarily supposed that inversion of the uterus is due to traction made upon an adherent placenta; but it *may* occur independently of this cause. Dr. Schroeder† says: "Inversion is doubtless brought about in this way: the uterine foundation, or base of the tumor, which consists of normal uterine tissue becomes atrophied (either disappearing or undergoing fatty degeneration), by means of the pressure which the tumor exerts. A gap is thus formed in the firm contractile tissue, the tumor sinks into the cavity of the womb, and is driven towards the mouth by its own weight and the contractions of the organ. The os then opens and the tumor sinks into the canal of the cervix, and thus, the adjacent portions of the uterine wall being drawn down, a complete eversion is gradually accomplished. In some cases, however, after the tumor has sunk a certain distance into the cavity of the uterus, the inversion is rapidly accomplished by means of uterine contractions."

This is a very good description of the *modus operandi* of inversions occurring from tumors in the fundus. It may

* West, Diseases of Women, p. 231.

† Ziemssen's Cyclopædia, Vol. X, page 215.

be added, that traction upon a uterine polypus whose pedicle is attached at the fundus may invert the organ. We may also say that pressure with two or three fingers upon the fundus through the abdominal walls, soon after delivery may indent the fundus, and the process of inversion may go on gradually, as it does in cases of tumors of the fundus, till the organ is completely inverted.

This indentation may be made by the patient, or the nurse; or a child climbing over the bed of its mother might put its little hand upon its mother's abdomen, and the force which it could exert, might start an inversion (if the mother had not been long delivered). This is a point of much importance in *medical jurisprudence*, or would be in case the physician had a case of inversion on his hands, and also a suit for *malpractice* for producing it in the delivery of the placenta unskillfully. This indentation by the mother, the nurse, a child, or any one, *might not produce for a time any more serious symptoms than pains of an intermitting character*, which might readily be mistaken for ordinary after-pains, and hence the physician would fail to recognize the partial inversion which perhaps he is blamed for, as well as for producing it by unskillfulness, *when in reality he is not in the least to blame.* Besides, there might be a thickened condition of the tissues of the fundus, *tending to the formation of an intra-mural fibrous tumor, or there might be already existing a tumor of some size in the walls of the fundus*, which caused the depression in it, as soon as the uterus was left empty by the delivery of the child and placenta; and inversion may also result from irregular contractions of the muscular tissues of the womb.

By these remarks, I do not wish to deny that inversion may be produced by undue traction upon a placenta which is adherent to the fundus. I most cheerfully acknowledge this *might* be the case; but I wish to *impress the student* with the idea that *it occurs from various causes independently of this.*

Diagnosis.

The diagnosis of a case of inversion is *not* so easy as might at first be supposed, especially if the case be one of long standing. It is most likely in a chronic condition to be mistaken for a fibrous polypus. The *fibrous polypus* is destitute of feeling, while the *inverted uterus* is usually somewhat sensitive. This is not always the case, however, as it sometimes becomes lost to sensibility. While partially inverted it has much the appearance of a polypus. We can pass the uterine sound into the os two or three inches, and sometimes further, and sweep the sound around the apparent tumor, and seem to feel the attachment of the pedicle at the fundus of the uterus.

Sometimes in these cases we can make out the diagnosis by rectal examination, and be able to pass a finger into the circle formed in the inverted fundus, and feel the sound passed into the bladder. In other instances it is impossible to do this, and we have to rely partially upon the history of the case.

In uterine polypi we usually have a history of frequent and profuse hemorrhages, dating back several years, while in inversion, although we sometimes have much hemorrhage, the time elapsing since its commencement is shorter (generally but a few weeks), for if of long duration complete inversion would have occurred. And even here we may be mistaken, for I have known a uterine polypus to produce no hemorrhage till of considerable size. A slight menstruation usually takes place from the surface of the tumor if it be the *inverted uterus*, which never occurs from the surface of a *fibrous polypus*. The recent case following confinement is usually easily recognized if complete, by its size, its bleeding surface, or the partially adherent placenta, the shock to the system, taken in connection with the recent delivery of a living child, and the impossibility of a large polypus being retained in the

uterus during healthy gestation, and by the fact that the tumor was not present when the child was delivered.

Complete prolapse of the uterus may simulate complete inversion, but in this case the differential diagnosis consists in that the prolapsed uterus presents an os into which we can pass the sound three or more inches, while the inverted uterus presents an oval surface, with no opening in its dependent portion.

The tumor is larger in its lower portion in inversion, and tapers upwards, while in prolapse the lowest portion is the smaller. The uterus, which is inverted after confinement, will contract and become much smaller if it remains long inverted, though it remains larger than in its normal state—*i. e.*, complete involution does not take place in the inverted organ.

Retention of urine is a symptom in some cases of inversion.

Several eminent physicians, surgeons, and gynæcologists have made mistakes in diagnosis in cases of inversion. Dr. Emmet* says: "I have myself tightened the chain of an ecraseur around the pedicle of a supposed polypus, which was attached to the fundus at a distance of over two and one-half inches from the cervix, where on further investigation the case proved to be one of inversion. Dr. M. A. Petit† had a patient in the hospital at Lyons which six experienced surgeons decided had a polypus, which proved to be an inverted uterus. Dr. Wm. Hunter tied what he thought was a polypus; the woman died, and the tumor was found to be an inverted uterus. Dr. Dubois reports two cases of inversion which were mistaken for polypi by eminent surgeons of Paris. Dr. Denman made the same mistake." Drs. Velpeau and Gooch fell into the same error. Most of the gentlemen in this country who have made this

* Emmet's "Diseases of Women," p. 410.

† Barnes's "Diseases of Women," p. 627.

mistaken diagnosis have kept their own counsels; therefore, I mention no names.

The little effect produced upon some women by inversion of the uterus is truly wonderful, while in others there is a profound impression made upon the system from shock, like that which results from severe traumatic lesions. This shock or depression of nerve force, either with or without hemorrhage, is sometimes so great as to prove suddenly fatal. Even simple depression of the fundus has caused shock from which the patient never rallied.

The symptoms of simple depression are ordinarily pain in the part with some hemorrhage from the uterus. As inversion progresses the pain is more and more intense, and hemorrhage is sometimes profuse, and at other times it is arrested, in great part, as the uterine surface is firmly compressed against the cervix in its descent through the cervical canal. In cases following soon after confinement, the inversion may take place suddenly with but a small amount of pain, but the shock in these cases is very great. A weak pulse, clammy skin, cold extremities, nausea, fainting spells, etc., are the symptoms most frequently present in cases of sudden and complete inversion, and should cause the physician to at once institute a physical examination; and, if he does not feel competent to decide the diagnosis and institute prompt and efficient measures of relief, he should call for a consultation at once. In complete inversion the uterus is found as a tumor in the vagina, or protruding from the os vaginam, its size ranging according to the condition of the uterus.

Treatment.

Until within the last thirty years the replacement of the inverted uterus was thought to be impossible after the lapse of twelve hours. In 1847, Dr. M'Coy,* of Harrisville, Ohio, reported a case he had reduced two days after delivery. In

*Amer. Jour. Med. Sciences, July, 1847.

the same year M. Valentine* succeeded in reducing one of sixteen months' standing (*Med. Chi. Review*, November, 1847). Dr. Quackenbush, of Albany, in 1855† performed the first successful operation for chronic inversion in this country, though he did not publish the case till 1859. In 1858 Dr. J. P. White, of Buffalo, reported a case that he had successfully reduced which had existed for sixteen years.‡

There are three classes of cases with which we are liable to meet, and I think it advisable to discuss their treatment separately. They are, the *recent inversion after delivery;* the *chronic inversion following delivery*, and *inversion*, either *recent* or *chronic*, caused by a fibrous polypus.

In the case of recent inversion, accompanied with faintness, coldness, hemorrhage, etc., as is usual in cases following delivery, the indication is clear to apply warmth to the feet and limbs, and give stimulants freely, though not to the extent of producing the depression consequent upon excessive stimulation. These things can be attended to by the nurse, and we should be busy ourselves in compressing and attempting to replace the inverted organ.

In the case of complete inversion immediately following confinement, with the placenta still adherent, it is best at once to detach it by inserting the fingers between it and the uterus, and taking it off as we would an orange peel from an orange. Then seize the uterus in its most dependent part and compress it upwards, after placing the patient upon her side with her hips elevated and her thighs flexed upon the abdomen, having the shoulders and head low. In this position, with one limb held up by the nurse, we grasp the extruded bleeding mass *without fear or hesitation*, with both hands, and carry it into the vagina; then, with one hand grasping the mass, we proceed to carry it upwards by *firm*,

* Rankin's Abstract, January, 1848.
† Reports, New York State Med. Soc'y, 1859.
‡ Amer. Jour. Med. Sciences, July, 1858.

continuous pressure, compressing the mass all the while with the fingers all that we can, at the same time we press upwards steadily.

This effort is to be persevered in till the hand passes with the mass up through the os uteri, and still onwards till the organ is reinstated. Just before this is accomplished the fundus springs into place, leaving the hand free in the cavity of the uterus. Do not withdraw the hand at once, but retain it there for a time, so that by its presence it may stimulate uterine contractions, and we may be sure that with the coming on of contractions the inversion does not again result. As the uterus contracts around the hand, allow it to slip out, or rather be expelled by the uterine contractions.

Rest, good diet (which, of course, must be mild at first), and good air complete the cure, if we wait long enough. Still, to hurry convalescence, *China*, *Ars.*, *Nux*, *Merc. iod.*, *Ars.*, etc., are useful in giving strength to the patient, if used according to their homœopathic indications.

Ars. Alb. is indicated if there is great prostration with nausea, excessive thirst, etc.

Ars. Iodid.—Prostration, with arrest of the secretions, scanty, dark urine, torpid bowels, loss of appetite, etc.

China is specially indicated where there has been great loss of blood, and there is great weakness, difficult respiration, feeble pulse, blanched countenance, etc.

Merc. Sol.—Great weakness, with diarrhœa, impoverished blood, coated tongue, with profuse leucorrhœa.

Nux Vom.—Prostration, with colicky pains, constipation, loss of appetite, general nervousness, exhaustion, trembling of the limbs, tendency to paralysis, etc.

Treatment of Chronic Inversion of the Uterus.

After twenty-four hours the inversion may be considered chronic, as the organ has by this time contracted (including the cervix) so that it will be impossible to reinstate it with

the hands, as just described in treating the recent case, or, it is at least impossible to carry the hand within the os and complete the reinstatement, though the *same principle* of treatment is applicable.

In the chronic case, especially the one which has existed for years, a considerable amount of perseverance is necessary to accomplish the reposition of the organ. It may take *repeated* trials, aided by *anæsthesia*.

Operation to Reinstate the Uterus in Chronic Inversion.—In the first place, the bowels and bladder should be freely emptied just previous to the commencement of the attempt to reinstate the organ. The patient should lie upon the side, with the hips elevated, the patient's face being turned a little downwards from a side position. This draws the abdominal viscera away from the pelvis about as well as the knee-elbow position, which we can not adopt in this case on account of the length of time required in the operation, as well as the anæsthetic, which it is advisable to give till complete anæsthesia is produced. One limb should be held up by an assistant, and the well-oiled hand should grasp the tumor and carry it up into the vagina; still maintaining the grasp around the mass, press upwards.

We now insert a repositor, as represented, with a cup-shaped extremity (see Fig. 59), to fit over the inverted fundus, with a handle about fifteen inches long. This may be made of hard rubber or hard wood turned into proper shape, or an old-fashioned wood stethoscope may be used, if nothing better can be conveniently obtained. Dr. White has invented a similar apparatus, with a spiral spring attached to the handle to press against the body of the operator. (See Fig. No. 59.) With this repositor we continue to make steady pressure, still maintaining the grasp of the hand around the mass as high up as possible.

Now, expand the thumb and index finger as widely as possible, thereby dilating the cervix by pressing against the

vaginal wall at its junction with the uterus. Thus, by expanding the ring through which the fundus has to pass, and compressing and forcing up the mass with the hand and the elevator we gradually return it within the os. We should

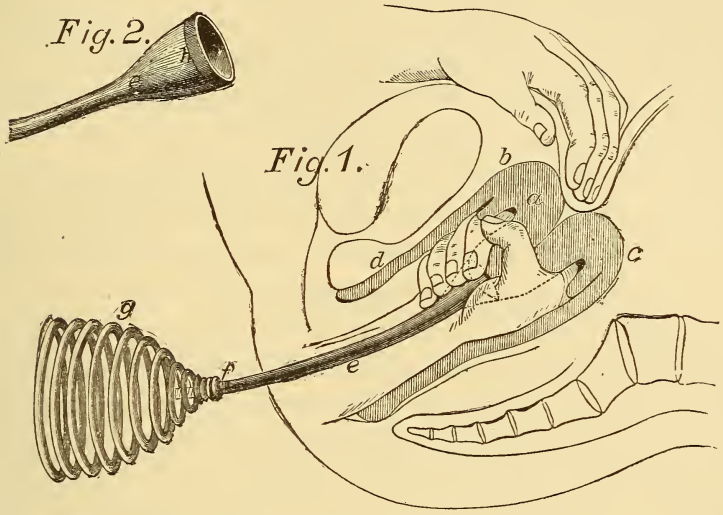


Fig. No. 59.—White's Uterine Repositor.

now have at hand a smooth, round piece of hard rubber, an inch in diameter and about fifteen inches in length. This insert into the cervix, and carry the fundus before it till it jumps away from the pressure, as it will when almost reinstated.

After the fundus is within the os, we may sometimes complete the operation with a finger carried up into the cervix; but often the finger is not long enough, and we can not in this way exert the force we desire, and which is found to be necessary to complete the turning. Prof. Emmet recommends "stitching the os together when the restoration is so far accomplished as to get the mass into the os uteri in cases which make it desirable to discontinue the anæsthetic on account of the length of time consumed in the operation, in order to retain what advantage he has gained to start on

at his next attempt."* I believe if we have the round elevator I have just described at hand, of a size just large enough to enter the cervical canal, we may complete the operation at the first trial, as it is getting the fundus up through the os, which is usually the most difficult. Dr. Emmet also recommends the pressing of two fingers into the depression in the uterus from above through the abdominal walls, and pressing it from one side to the other, dilate it, so as to admit of the return of the inverted portion.

It is always desirable when the physician is about to attempt to reinstate the chronically inverted uterus, to have two or three skillful assistants to relieve him from time to time in making the necessary compression upon the mass to be returned, as well as to give the anæsthetic. This need not be continued all the time; it is better for the patient that she come out from its effect for a short time every half hour or so. After the reinstatement of the organ the patient should be kept in the recumbent position for several days, and *Secale cor.* should be given in large enough quantity to obtain its secondary effect (that of inducing contraction).

If the uterus does not contract when a reasonable quantity has been given, the finger should be introduced into the cervix, and by frictions attempt should be made to excite the contraction of the muscular tissues. When this contraction commences administer *Secale* to increase it, giving the remedy in twenty-drop doses of the *Flu. ext.* in warm water every twenty minutes till three doses are taken; then wait for results. Generally speaking the case is to be now treated as an ordinary one of sub-involution.

Treatment of cases of Inversion caused from Tumors of the Uterus.

In case of inversion from traction upon a tumor attached to the fundus, or from the efforts of the uterus to expel it,

* Emmet's Prin. and Prac. of Gynæcology, p. 426, 7.

the first indication is to remove the tumor with the ecraseur, if pedunculated, or by enucleation if not pedunculated, and proceed to reinstate the organ as in the chronic inversion just described, though if there is not much hemorrhage we may well wait till the wound caused by the removal of the tumor has healed.

In the recent case following delivery, where there is a small intra-mural fibrous tumor in the fundus, I would smear the uterus with *Ferri persulph.*, make an incision, remove the tumor by enucleation, and proceed to restore the organ by taxis, as before described in treating of recent cases of inversion. Take no sutures in the lips of the incision.

Other Methods of Operating.

Simpson's and Thomas' Method.—"This consists* in making an incision through the abdominal wall, so as to get at the constricted os uteri from above, and then apply a dilating force." Dr. T. G. Thomas has been bold enough to put this suggestion into successful practice in two cases; one of these, however, resulted fatally, from peritonitis.

Barnes' Method†—"In 1868, Dr. Barnes having failed by ordinary means in the reduction of a case of inversion, passed a slip knot of tape over the inverted uterus and drew it down. He then made three incisions in the neck of the uterus and reinstated the organ by Emmet's plan. No material inconvenience followed." "Drs. Sims and Thomas ‡ have put this plan in practice, and it is also recommended by Sir James Simpson."

Watts' Method.‖—"Recently, Dr. Robert Watts, of New York, has succeeded in reducing a case of inversion at the Roosevelt Hospital, in the following manner: He first drew down the uterus, so as to make it protrude partially from

* Emmet's Principles and Practice of Gynæcology, page 417.
† Thomas, Diseases of Women, page 636.
‡ Emmet, page 418.
‖ Emmet, page 418.

the vaginal outlet, and then passed two fingers into the rectum. He then pressed a finger into the depression formed at the seat of inversion. Then by means of the hand grasping the uterus at the mouth of the vagina, the organ was gradually pushed down on to the finger, which, of course, carried before it a portion of the anterior rectal wall. He then succeeded in getting two fingers through the ring, when it became sufficiently dilated for the fundus to be pushed up on the point of the index finger. Without further difficulty the restoration was completed."

Spontaneous Reduction.—Strange as it may seem, there are several cases of spontaneous reduction of the inverted uterus reported by Dr. Meigs. I can not understand and will not attempt to explain how it is accomplished. Of these cases Dr. West remarks: "It is easier to conceive that an experienced man should commit an error of diagnosis than to understand how any efforts of nature could cure a chronic inversion of the womb."

Amputation of the Inverted Uterus.—Amputation should be only recommended when the life of the patient is placed in the greatest peril from non-interference. The statistics, however, are not so formidable as one might imagine they would be. From cases collected by Schroeder* and Scanzoni† we have the following results: "Total, sixty-nine amputations, forty-nine recoveries."

	Total.	Deaths.
Simple removal	14	8
Simple ligature	26	7
Ligature and removal	29	5

I will suggest that care be used not to amputate the entire organ; simply cut off the fundus and a part of the cervix. The application of a ligature of wire is perhaps preferable to any other, tightening it from day to day, and removing the greater portion of the tumor with the ecra-

*Ziemssen's Cyclopædia, Vol. X, page 221.
†Emmet's Diseases of Women, page 440.

seur or knife an inch or so from the ligature, after two or three days. Dr. Emmet says he would not perform the operation under any circumstances, though he has known three amputations in the practice of others to recover.

Anomalous Cases.—Gerard de Beauvais* relates a case of recent inversion where death resulted from the strangulation of the intestine in the uterus. One case related by Guyon† had existed twenty years without disturbing the health. Dr. Comstock‡ relates a case of inversion where the patient followed the occupation of a dairy-maid. Dr. H. Miller,‖ of Louisville, Ky., relates a case where the uterus, ovaries, and ligaments were torn out by a midwife, and the patient recovered. He believes in amputating the womb.

The Uterus has been Known to Slough Off.—E. Clemensen§ reports a case of complete inversion where the uterus separated by gangrene, and the patient recovered.

Elevation of the Uterus—Upward Displacement.

Upward displacement is not of so frequent occurrence as other varieties. It is produced by hæmatometra in cases of atresia of the lower portion of the vagina or imperforate hymen, and from recto-vaginal hæmatocele, especially when the *hæmatocele* is developed in the cellular tissue below Douglas' *cul-de-sac*. Occasionally peritonæal attachments, occurring during the latter months of normal gestation, serve to retain the uterus in an unnaturally high position in the abdomen. It may also be displaced upwards by tumors in the pelvis.

Treatment.

The treatment consists in removing the cause producing it.

* Acad. de Medecine, 1843. † Jour. de Chir. et de Med., 1861.
‡ Boston Med. and Surg. Jour., Vol. VIII.
‖ Louisville Med. Jour., 1870.
§ Barnes' Diseases of Women, page 624. Hospital Tidende, 1865.

CHAPTER L.

RETRO-VERSION AND RETRO-FLEXION OF THE UTERUS.

RETRO-VERSION and retro-flexion are of frequent occurrence, though often not recognized by the physician, an error of diagnosis being more frequent in retro-flexion than in retro-version. This is my own experience, though Prof. Emmet* gives only twenty-nine cases of flexures of the body of the uterus backwards out of three hundred and forty-five cases of displacements. He, however, records one hundred and eighty-two cases of flexures of the cervix, without saying whether they were backwards or forwards. I infer that he found most of these flexures of the cervix backward, which would make a total of two hundred and eleven cases of backward displacements out of a total of three hundred and forty-five cases. This would approximate my own experience, though I have kept no exact record of cases (never having intended to publish them). 52.75 per cent of all flextures he found to be in the cervix, and 47.25 per cent in the body of the uterus. I have found that most flexions were at the juncture of the body and the cervix. Dr. Barnes† says: "*Retro-version* is not nearly so frequent as *retro-flexion*." This is also my experience.

Retro version and *retro-flexion* may be congenital or acquired. By retro-version is meant the tipping backwards of the body of the uterus into the hollow of the sacrum, the os being carried forwards nearly or quite against the pubis, so that the axis of the organ is transverse in the pelvis.

Retro-flexion signifies the falling backwards of the fundus

* Emmet's "Diseases of Women," p. 327.
† Barnes's "Diseases of Women," p. 599.

Plate XIX.

RETRO-VERSION OF THE UTERUS.

against the rectum, the os remaining in its normal position or being carried slightly forwards. In these cases the uterus is in a sort of half-moon shape, its concavity looking downwards and backwards. Sometimes the uterus is bent upon itself at an almost acute angle, and is still termed retro-flexion if its concavity is backwards or downwards or both. Both in retro-version and retro-flexion the fundus of the uterus presses upon the rectum.

Until the present century little was known of displacements of the uterus. Simpson and Kiwisch have the honor to have instructed the profession more than any others in regard to displacements, mainly on account of the facility of diagnosis gained by the use of the uterine sound.

Etiology.

Retro-version and retro-flexion are the result of similar causes, except that the flexure occurs where the uterine tissues are flabby and relaxed.

These displacements are usually the result of enlargement of the body of the organ, more particularly upon or within its posterior wall (due to inflammatory action or the development of small tumors in the muscular tissue), and the condition of sub-involution, or enlargement in pregnancy, or from the growth of polypi within its cavity, conjoined with a relaxed condition of the broad ligaments, and also a relaxed condition of the peritonæal folds, which ordinarily support the intestines. This *relaxation* of the *supports of the intestines* and the broad ligaments of the uterus takes place in pregnancy to allow the uterus to rise in the abdomen; and when the product of conception is expelled, and the uterus contracts, these supports to the intestines are left weak and of unusual length; and if the patient rises too soon after confinement, and the intestines press heavily upon the uterus, this weight of intestines, conjoined with the *sub-involuted* condition of the uterus, and the relaxed condition of the pelvic connective tissue and vaginal

walls, together with the distended condition of the colon from accumulation of fecal matter, all tend to produce retro-version or retro-flexion. I should also mention the distension of the bladder as a cause of retro-version.

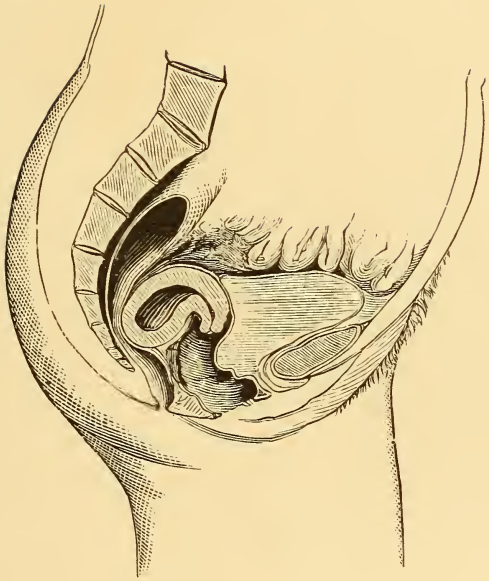
In this condition a jolt of the body might bend the fundus of the uterus backwards underneath the promontory of the sacrum, causing either a case of retro-version or retro-flexion; and the pressing downwards of fecal matter in the rectum would increase the flexion or version. This possible effect of the over-distended bladder should be constantly recollected.

The student should constantly bear in mind also that not only in retro-version, but especially in retro-flexion, there is some prolapse of the entire organ as well. Many cases of retro-flexion are overlooked for this reason.

The physician makes a digital or specular examination, and finds the cervix lower in the pelvis than normal, with the os directed a little forwards, and concludes there is prolapse (as is evident), and so diagnoses the case. He next attempts to replace the organ by pressing the os upwards, and inserts some kind of a pessary to keep it up. This allows the fundus to come downwards more and more, and the patient gets no relief. Another and another pessary is tried without avail. The patient consults other physicians, who try a wad of cotton saturated with *Glycerine*, or make local applications to the cervix with a brush (which by this time is much inflamed and enlarged). There is probably by this time considerable discharge from the os, indicating endo-cervicitis or endo-metritis.

This recital possibly looks a little overdrawn to some, but it is a true picture of many cases which have come under my observation, and if it was simply loss of time and money to the patient it would not be so bad; but it has often broken the constitution of the patient, impaired digestion and nutrition, and caused cellulitis, peri-metritis, ovaritis, or some ailment which will sooner or later terminate

Plate XX.



RETRO-FLEXION OF THE UTERUS.

fatally, all of which might have been avoided by a correct diagnosis and proper treatment in the outset.

It is not often that the unmarried woman has retro-version or retro-flexion, but occasionally cases do occur among this class.

Rectal adhesions are said by Dr. Barnes to be a cause of retro-version. These rectal adhesions may result from cellulitis, either with or without the occurrence of recto-vaginal hæmatocele. While this hæmatocele exists it crowds the uterus forwards and upwards; but when it is evacuated through ulceration or artificially, the uterus is liable to bend backward against the rectum in the space recently filled with the hæmatocele, and there being present some inflammatory action, adhesions are liable to occur, and the uterus is permanently retro-verted or retro-flexed.

I must not fail to mention the great influence which general debility has in causing these displacements. *General debility* certainly tends to produce them, and in turn is produced by them, and increased by this condition when displacement already exists. Inattention to the calls of nature, leaving the bowels heavy, tends to depress the organ, when the accumulation of fecal matter in the rectum presses down the fundus. Heavy lifting or a sudden strain, while the bladder is distended, may tip the uterus backwards.

Flexions occurring after the climacteric period are due to atrophy and atony of the uterine tissues. They do not, however, produce as much effect upon the patient at this period as during the time of menstrual activity.

Diagnosis.

The patient complains of constipation, frequent desire to micturate, pain in the back, nausea upon rising in the morning, a sense of weight and bearing down in the pelvis, painful menstruation. If married, she also frequently complains of dyspareunia. These symptoms will quite clearly indicate

a case of retro-version, but the positive diagnosis can only be made by a physical examination. In retro-flexion we have a similar train of symptoms, with the exception that there is not so much vesical irritation, the cervix not being carried far enough forwards to irritate the urethra or base of the bladder to any great extent. These symptoms may come on suddenly after some sudden fall or effort at lifting or jumping, constituting an acute case, or they may come on gradually, and be of long duration.

In these latter *chronic cases* there is usually present a considerable leucorrhœal discharge, often excoriating in character, producing vaginitis and vulvitis. The derangement of digestion is usually marked, and the patient is troubled with tympanites. The patient has usually had much treatment for prolapsus, and is thoroughly discouraged. Often there is a severe cough complained of, frequently caused by the derangement of the stomach, produced by the displacement and not connected with any disease of the lungs more than a slight bronchitis, which has resulted from the cough rather than being the cause of it. A thorough physical examination will clear up the diagnosis, and is, of course, necessary to *rectify* the displacement.

In retro-flexion, a vaginal examination reveals the os in its normal position, save that it is carried a little forwards and downwards. (I will just here say that the physician should have his patient evacuate the bowels and bladder just previous to the examination, if possible). If she has recently menstruated, and there is no fear of pregnancy in the case, we next proceed to introduce the uterine sound, the patient lying upon the back with the knees drawn up, and covered with a sheet (of course.) We first attempt to pass the instrument with its concavity forwards, as it would need to be if the uterus was in its normal position; in case the instrument is arrested in its course, we turn it over till its concavity looks backwards; if, then, it will not advance, we

should press up the fundus through the posterior wall of the vagina or through the rectum with a finger of the left hand, while we still attempt to introduce the sound with the right hand. Generally, in retro-flexion the sound passes up about an inch in nearly a normal direction. In retro-version, we direct the sound backwards from the start. The os being rather tightly pressed against the pubis and rather inclined upwards, we sometimes have to push up the fundus either through the vagina or rectum before we can get the sound to enter the cervix. In case the sound enters the fundus while directed backwards, it is conclusive proof of the backward displacement.

When we introduce the sound, and it passes readily up into the uterus in its normal position, we know that the symptoms in the case are due to some other cause than displacement. If we can detect a globular body posterior to the cervix, which we had thought to be the fundus, and which we have by the sound found to be something else, we should at once try to ascertain what the tumor is. It might be impacted feces—the ovary enlarged and displaced—a tumor on the posterior wall of the uterus, or it might be a recto-vaginal hæmatocele of small size, or indicate the commencement of cellulitis.

The aid of the speculum is not required in the examination of cases of displacement.

In case pregnancy is suspected or known to exist, and we have symptoms strongly pointing to retro-version as the difficulty, we must depend upon the information we may gain by digital examination *per vaginam* and *rectum*. Generally we are aided in the diagnosis by the suddenness of the attack, and the enlarged size of the uterus, as well as the irritation of the bladder being more severe on account of the pressure being greater than in cases where the uterus is unimpregnated, owing to the uterus being longer, and consequently forcing the os harder against the urethra. This is

especially the case if the uterus is retro-verted. In case it is retro-flexed we have to depend upon rectal examination, in connection with the symptoms and the history of the case, to make out the diagnosis.

In some instances adhesions take place in the cervical canal at the point of greatest flexure, and in all cases the cavity of the cervix is lessened in size, at the point of flexure, which in part accounts for the dysmenorrhœa, so generally complained of, especially if the flexure is at all abrupt. It particularly affects the unmarried and sterile in this way. Those who have had children are not so frequently troubled with painful menstruation, even though they have a retro-flexion of the uterus.

Various nervous symptoms of a sympathetic character often complicate cases of retro-version or retro-flexion. One description so admirably given by Dr. Barnes * I quote on this point: "The nervous system, often so susceptible in women, will exhibit the most marked aberrations. The nervous centers respond to the slightest impressions. Hysteria breaks out in all its manifold eccentricities. Neuralgia appears in one or more of its various forms, as *sciatica, lumbago, tic-douloureux, rheumatism;* headaches and a disposition to vertigo or syncope frequently recur; emotional, moral, and intellectual disturbances as manifested in irritability, despondency, melancholy, loss of command over feelings and thoughts are often developed. Many of these phenomena may be thus traced to bad nutrition; but there is good reason to believe that especially the nervous phenomena are more directly induced, or are, at any rate, aggravated, by the influence of the displaced uterus upon the nervous centers."

The congested displaced organ is a constant source of nervous irritation and exhaustion; it is constantly pressing upon the sacral plexus; it is constantly sending painful impressions to the nervous centers; constantly using up in a morbid

* Barnes' Diseases of Women, page 608.

direction the nerve force which is wanted for the performance of healthy function.

A not uncommon form of nervous disorder, induced by retro-version, is severe, almost constant, pain in the lower part of the spine; sometimes most intense in one fixed spot.

Many such cases have been treated as sufferers from spinal disease, and have been confined to the couch, wearing various spinal instruments for months and years under the erroneous belief that the spinal suffering was primary and organic, its sympathetic character not being suspected. With or without marked spinal pain, a sense of numbness, and want of power, especially of inability to walk, are often complained of, and tend to confirm the belief in spinal disease. Brown Sequard distinctly traced paraplegia to a retro-flexed uterus.

I can well imagine the surprise with which the reference of these formidable consequences to retro-flexion of the womb will excite in the minds of those physicians who are ignorant of the pathology of the pelvic organs. They perhaps will exclaim, "Such are the extravagances of specialists." Yet, I would ask, is not the sequence of events as narrated quite in harmony with sound pathology? I am very sure they are in harmony with accurate clinical observation. If this be doubted by those who are ignorant of gynæcology, may it not be because they have thought it might be possible to study successfully diseases in women, whilst omitting to take note of the diseases of those organs which make women what they are? The test of treatment confirms the conclusion drawn from diagnostic explorations. In the great majority of cases the evils enumerated as found in association with retro-flexion are relieved and finally removed when the retro-flexion and its local consequences are cured.

Uterine Changes Caused by Flexion of the Organ.—Obstruction to its circulation brings congestion. This leads to

hypertrophy of its walls, especially of the body, the vaginal portion often partaking only slightly in this change.

The obstruction to the escape of menstrual and mucous secretions from the cavity of the uterus increases the congestion, and leads to increased secretion, These being retained uterine contractions are excited to expel them, the os internum being more or less closed, the uterus contracting as a sphere upon its contents. There is, then, in proportion to the extent of the obstacle opposed in the os internum, dilating force applied to the mouths of the tubes. These gradually yield, and a retrograde dilatation of the tubes sometimes will follow.

The dilatation of the cavity of the retro-flexed uterus is always attended by some amount of chronic inflammation of its mucous membrane. Perhaps the term inflammation is illy chosen; the condition is rather one of constant engorgement, leading to rapid shedding of epithelium and increase of mucous secretion.

The retention of the mucus causes uterine colic. A certain quantity of mucus must accumulate before the uterus becomes so distended, as to excite it to contract. This quantity in many women is remarkably definite, taking in some cases a week, in others a fortnight, to collect. Why the expulsive colic simulating dysmenorrhœa occurs midway between two periods, is simply because the uterus being emptied at the menstrual epoch, the secretions begin to gather again from that time, and cause contractions when it becomes filled up. Not seldom a little blood is mixed with the mucus. This is not to be interpreted as the result of ovulation, but is simply hemorrhagic and the product of engorgement.

It is a common history we hear from women suffering from uterine obstruction, that they have periodical gatherings like an abscess in the womb, attended by severe colic and expulsive pains, which are relieved by the "bursting" and escape of a quantity of discharge. These cases are of the

kind above described, although they may not exhibit equally regular periodicity.

Treatment.

There are three classes of cases of retro-version and retro-flexion, which require a somewhat different treatment. In retro-version we expect to be more successful than in retro-flexion. This is due to the flaccid condition of a part or a whole of the uterine tissue in most cases of retro-flexion, and causes a return of the difficulty more readily. The three conditions which require modified treatment are:

The recent case which is not pregnant,

The case complicated with pregnancy, and

The chronic case not pregnant.

In the recent case of retro-version or retro-flexion (which is usually caused by a strain, jolt, or fall) we have little difficulty in effecting a complete and rapid cure, for in these cases the abdominal viscera are not so much displaced, and the attachments of the intestines have not given way so much, as in chronic cases. We, therefore, need pay but little attention to lifting up the intestines, and need use no pessaries. Ordinarily, when the uterus is reinstated in these cases, it stays.

Operation for Reinstating the Organ.—First, have the bowels and bladder evacuated. The patient may then be placed upon her left side, with her hips upon a pillow, shoulders and head low, and the thighs flexed upon the abdomen; or she may rest upon her knees and chest, called the knee-elbow position. The hips in this position are elevated at an angle of about forty-five degrees, and the weight of the abdominal viscera draws them away from the pelvis, and leaves a space for the uterus to occupy its normal position. Either of these positions of the patient is desirable. (I have often, however, in recent cases replaced a retro-verted uterus with the patient reclining upon the back; but it is more difficult, and I do not recommend it.)

I next pass the index finger of the left hand into the vagina to ascertain the position of the os, and direct the sound, which is to be held in the right hand, with the concavity directed backwards as regards the patient. Insert the sound gently to the fundus; then withdraw the finger from the vagina, and insert the middle finger into the rectum, and press the fundus upwards and forwards, at the same time carrying the handle of the sound backwards. After carrying the sound as far back as the perineum will allow, turn it gently over in the fingers, so that its concavity will be forwards; this movement lifts the uterus out from the hollow of the sacrum, and throws the fundus forwards into its normal position, if we at the same time carry the whole organ upwards after we have turned the fundus forwards by withdrawing the finger from the rectum, and inserting it into the vagina, pressing upwards at the same time, with the finger against the os, and the sound resting against the interior of the fundus. Or, instead of the sound, we may use Elliott's elevator (see chapter on Instruments, Plate XIV).

In using the sound for the purpose of replacement of the retro-verted or retro-flexed uterus, as we make the rotary motion to change the point of the instrument from looking backwards to looking forwards, the movement should be steady and firm, but gentle. When the position of the patient is favorable, so that we have gravity to assist us, with atmospheric pressure utilized, by the partial vacuum caused by the gravitation of the bowels upwards, and the opportunity given the air to enter the vagina during the manipulation for the replacement of the uterus, it (the atmospheric pressure) does more to correct the partial prolapse than it does to restore the retro-version or retro-flexion. The attachment of the vagina to the cervix uteri is so near the os uteri, and the posterior *cul-de-sac* of the vagina is so small, that even the hardest upward pressure against the fundus of the uterus, if exerted through the vaginal wall, will fail, unaided, to restore a retro-

version or retro-flexion. The atmosphere aids us, then, only as it elevates the uterus in the pelvis; it can not change the axis of the organ, or rectify a flexion, unaided.

After the uterus is reinstated the patient should lie as quietly as possible. It is best that the patient be upon her bed when the operation is performed. Strictly enforce the reclining posture, and direct that a pillow be placed under the hips, and that she lie upon her side, using a bed-pan for the calls of nature, and not rising to the erect posture for several days. This plan may be carried out in some cases, but in others it can not be. If we find it is impracticable to restrain the patient in the recumbent posture we had better use precautions in other ways to prevent a relapse of the displacement, as I will mention in the treatment of the chronic case of retro-version or retro-flexion. (See chapter on Instruments, regarding the use of Elliott's uterine elevator, and my improvement of the London abdominal supporter.)

Treatment of Retro-version or Retro-flexion Complicated with Pregnancy.

In these cases we are precluded from using a sound or uterine elevator passed into the uterine cavity, on account of the danger of producing a miscarriage; hence, we must reduce the displacement by taxis, aided by gravity and atmospheric pressure.

The patient should, as before, be placed either upon her left side, with the hips elevated and thighs drawn up, or in the knee-elbow position (after having freely evacuated the bladder and rectum). Insert the first two fingers of the right hand into the vagina, and press the cervix backwards, while we insert one or two fingers of the left hand into the rectum, and press against the fundus through the anterior wall of the rectum, crowding it upwards and backwards. We, of course, have more freedom of motion with the fingers in the vagina than with those in the rectum; and we may gain much advan-

tage by a sudden backward motion against the cervix when the fundus is pressed forwards and upwards as far as we are able with the finger in the rectum.

Should we for any reason fail by this style of taxis to reinstate the uterus, we may with great advantage insert an elastic air bag into the rectum, and carry it up with the finger so it is just back of the fundus. After it is carried as high as possible with the finger in the rectum the bag should be inflated by an assistant, while we give to the cervix the sudden backward motion before-mentioned. This will usually prove efficient, and the patient should be kept in the reclining posture, the same as recommended in the recent variety uncomplicated with pregnancy. After the lapse of two or three weeks the liability to relapse is slight, and the patient may be allowed to rise and walk about.

This freedom from liability to relapse is due to the size of the womb having increased during the time it was displaced and during these weeks of rest, so that if it did have a tendency to become again displaced backwards, the fundus would rest against the promontory of the sacrum and prevent a retro-flexion or retro-version. These manipulations, if gentle, need not endanger a miscarriage. No pessary is usually required in this class of cases, though it is sometimes desirable to wear a nicely adjusted abdominal supporter for a few weeks, when the patient commences to go about.

Treatment of the Chronically Retro-flexed or Retro-verted Uterus.

In the chronic case of retro-version or retro-flexion, we have to contend with a relaxed condition of the supports of the intestines and the consequent displacement of them down upon the displaced uterus. In connection with this we have in some cases attachments formed, more or less strong, between the uterus and the cellular tissue situated between the vagina and rectum. Conjoined with this we have the relaxed condition of the uterine muscular tissue and debility of the

entire system, caused by the pain, the discharges, the inflammation, indigestion and constipation, so common in these displacements; hence it is that a very different treatment is required in the chronic case from what is efficient in the recent one.

On account of the various difficulties we encounter in the treatment of these chronic displacements, we must be upon our guard in giving a promise of speedy and certain relief.

The long time required for the complete cure of this class of cases, makes it unwise to compel the continuous resort to the recumbent position; hence in the outset we must devise means to lift up the abdominal viscera and retain them from pressing down upon the uterus, until such time as the attachments and supports of the intestines become strong. Upon our skill in accomplishing this object will largely depend our success in the treatment of these displacements.

Different patients must be treated in different ways. In a few cases we may be unable to succeed, but in the great majority we may be successful. It is not worth while to fritter away valuable time in efforts to cure the inflammation in the cellular tissue or the endometrium, or the dyspeptic or hysterical symptoms present, till we have adjusted the displacement and secured its stability, when in many instances the sympathetic symptoms leave.

First, then, let us secure a properly adjusted abdominal supporter, and see to it that it *acts as a supporter*, and not as an abdominal compressor. This may usually be accomplished with my *improved* London supporter made by Wocher & Son, Cincinnati (see chapter on Instruments), or by means of the silk elastic abdominal band. Sometimes in using either of these it is necessary to apply a pad of cloth under them against the lower abdomen to get sufficient pressure, to lift the viscera upwards when the band is tightened. The upper part of the band must be left loose so that the abdomen may rise upwards and forwards, and rest upon the supporter. When

this is accomplished we have caused a partial vacuum in the lower abdomen, and the replacement of the uterus and its maintenance *in situ* is made comparatively easy.

We may then proceed to reinstate the uterus in the same manner as in the recent case, using taxis, the sound or uterine elevator of Elliott in the uterus and the *air bag of Gariel* in the rectum. This air bag or elastic pessary is made of soft elastic rubber of various sizes and shapes, with a tube attachment about eighteen inches long, by means of which the bag is to be inflated, after being introduced in a collapsed state. This throws the fundus forwards, as explained before in the treatment of the recent case of retro-version or retro-flexion. When attachments have formed of so strong a character that we are unable to restore the organ by using gentle force, we must abandon the attempt and use such means and remedies as the most urgent symptoms demand.

After succeeding in the replacement of the organ I prefer to apply a wad of cotton saturated with *Hydrastis* and *Glycerine* to the cervix, and beneath it insert the elastic pessary just mentioned. This is especially necessary if our patient is compelled to at once assume the erect posture, and we are not sure of the perfect action of the abdominal supporter; but in case the patient can remain in the reclining posture for two or three weeks, we can dispense with the pessary *in toto;* and we can lay aside the abdominal supporter also till the patient is about to rise. Put it on before she rises, whenever that is, whether it is one day, a week, or a month after the operation. Keep the hips elevated. Daily, or twice a day, have the round glass speculum introduced into the vagina, and allow it to remain for an hour or so, to allow of the free ingress of atmospheric air. Give the patient good air to breathe and good food to eat, keeping the whole body warm.

Examine once in two or three days *per vaginam* to see that the os is in position. If found too far forwards insert the

sound, and ascertain if there is a partial return of the displacement; if so, rectify it at once. The cotton wad may well be removed and renewed for several days, once in twenty-four hours, or oftener, if the discharge is profuse. *Nux* is a remedy almost universally demanded in these cases, though when there is any tendency to inflammatory action or high nervous excitement *Aconite* is indicated, and *Hyoscyamus*, *Verat. vir.*, or *Gelseminum* if the symptoms are hysterical.

Electricity in gentle current passed through the abdomen and uterus is of some service. Tepid bathing of the hips, back, and loins, with warm vaginal injections, are useful.

Bell. is indicated when there is a tendency to stupor, with a flushed face and bearing down pain in the pelvis and abdomen.

Cal. Carb., for a sense of exhaustion and debility, improved after rest.

Rhus Tox., for the tired, sore feeling not relieved by rest, tenderness of the muscles, etc.

Pessaries in the Treatment of Retro-version and Retro-flexion.

In general terms, I can say of pessaries in the treatment of these displacements, that as they have been used they have proven themselves a delusion, and have doubtless done much more harm than good. I am gratified to see that Professor Emmet,* of New York, speaks emphatically against the intro-uterine stem pessary, and I hope that erelong the profession will abandon many other forms now in use. Dr. E. says: "Unfortunately members of the profession are frequently advocating the use of the stem pessary, regardless of the experience of those who have gone before them, until they, in turn, have to learn that they have not been the wiser in their day.

"As soon as the true condition comes to be appreciated, the use of the intra-uterine stem will be abandoned as a

*Emmet's Prin. and Prac. of Gynæcology, page 352.

most irrational instrument. Experience will at last teach every one that no permanent benefit is ever derived from its use, that no degree of tolerance is ever established, but that sooner or later in almost every case mischief will result. I have long taught that its use in a flexure would be as irrational as the introduction of a straight steel sound into the urethra for the relief of an existing chordee; the penis might be straightened by force, but the cause of the difficulty would certainly *not* be removed.

"Were we to straighten out a flexure of the cervix by means of an intra-uterine stem, the end of the instrument would make continued pressure on the posterior walls of the vagina, on account of the want of space in the canal. So much disturbance, in American women at least, would be excited in the vagina and uterus, that inflammation would certainly become established if its use were persevered in. Then, as soon as the instrument is removed, the neck will return to its original condition.

"If this instrument be employed with a flexure of the body of the uterus, the disturbance is likely to be even more marked. A condition exists which so closely resembles an inflammatory one, that the slightest provocation is often sufficient to establish cellulitis, and even general peritonitis.

"Whenever, by sanction of a merciful Providence, the stem has been tolerated for a time, even in this condition, no more progress will have been made toward removing the existing cause of the flexure than would be accomplished by the sound in a case of chordee. Moreover, were its use entirely successful, so far that the canal remained perfectly straight and patulous afterwards, the cause of the flexure would remain, and the pain of menstruation would in all probability be increased in consequence of such disturbance."

My own opinion is, that the use of nearly all vaginal pessaries is open to nearly the same objection. This is emphatically true where no effort is made to take off from the

uterus the superincumbent weight of the displaced abdominal viscera, and the uterus is pressed from above against the hard substance of the pessary in the vagina.

There are two ways in which vaginal pessaries have been made useful. The ring pessary has allowed the more free ingress of atmospheric air. It acts as a vaginal dilator. It can never act as a uterine supporter directly, for, if small enough to just reach around the cervix, it will fall to the lower portion of the vagina; if large enough to distend the vagina, the uterus might partially prolapse through it, and become constricted. This condition is bound to occur when the weight is considerable upon the uterus, and the patient is allowed to go about. The soft rubber disk pessary of soft rubber inflated is the best of this form, if one must be used. The inflatable gum-elastic bag, egg-shaped and inflated with a tube from the outside of the patient after the bag has been introduced and well pressed up anterior to the cervix and inflated while this pressure is maintained, fills the vagina, presses the cervix backwards, and tends greatly to prevent a recurrence of retro-flexion or retro-version when we conjoin with its use the abdominal supporter, or confine our patient to the recumbent posture.

Still, even these soft pessaries are objectionable if continued long, in that they by their presence obstruct the circulation, and retain offensive and irritating discharges. I only use them till I can get the abdominal support properly applied, and the patient instructed as to its proper use, or in case the patient shows no judgment and will not co-operate in the proper treatment. In these cases we must personally remove, cleanse, and replace it every day or two. If we trust the patient to do this, she will be as likely to get the pessary behind as in front of the cervix, and, consequently, rather do harm than good with its use.

The cup pessary, which sustains the uterus in a cup, which is attached to a steel bar, curved properly and attached in

front to a band around the waist, can be worn by but few, and is very liable to produce inflammation of the cervix; still may be required in obstinate cases in old women. (See Plate VII.)

Incisions of the Cervical Canal in cases of Flexion.—This operation was first proposed by Prof. Simpson, of Edinburgh. But I presume that Dr. Sims, of New York, has most frequently performed it. It is one I have never found necessary to adopt in the treatment of flexions of the cervix, or any part of the uterus. There may, however, occasionally be found a case where a slight incision at the point of acute flexure might be of service in allowing the more easy introduction of a sound or uterine elevator, and facilitate the introduction of the sponge tent, if its use should be necessary, to dilate the stricture of the cervical canal at this point. Prof. Emmet* says: "Since the practice of indiscriminate division of the cervix was first introduced by Prof. Simpson, more malpractice has been perpetuated throughout the world in the name of this simple operation than from any other procedure known to the profession." Prof. Emmet has, however, performed the operation, which he does by incising the entire cervical tissue through posteriorly. Any uterus into the cervix of which we can readily introduce either a hysterotome or scissors, does not need incising. If there is any canal at all it can be found with a small uterine probe, and its size gradually increased by dilatation. If there is no opening the case is one of atresia, and must be treated accordingly. I will, therefore, give no directions for the performance of an operation I do not believe is absolutely demanded.

The use of Sponge Tents in Flexions.—Sponge tents may be demanded to dilate a stricture of the cervical canal caused from a flexure, as well as to facilitate the use of the uterine sound or elevator. They in a slight measure may

*Emmet's Diseases of Women, page 351.

aid in straightening the flexed cervical canal; at any rate, they help to make the canal larger, and, consequently, prevent much of the dysmenorrhœa caused by flexions with a contracted cervical canal. In using the sponge tent the applicator is desirable. (See Fig. No. 60.)

This sponge tent applicator has a spring slide upon it, so that by pressing upon this spring we can withdraw the instrument without making any traction upon the sponge itself, as the spring slide presses against the sponge, and tends to press the tent further in, rather than to withdraw it, when we remove the applicator.

Fig. No. 60.—Emmet's Sponge Tent Applicator.

The sponge selected must be of the smallest size and curved to correspond to the flexure, as nearly as possible. Turn the concavity of the sponge backwards. Press the sponge well into the cervix, and retain it in position with the applicator for ten or fifteen minutes, to give the sponge time to get moist and a little expanded. Allow it to remain from twelve to twenty-four hours, and upon its removal insert a second, larger one with a sharp point, unless we find the first has dilated the cervical canal sufficiently to allow of the introduction of the sound into the body of the uterus. If so, the use of the tent may be abandoned. In the use of the tent here, as in other cases, it should be dipped into carbolized *Glycerine* before it is inserted.

CHAPTER LI.

ANTE-VERSION AND ANTE-FLEXION OF THE UTERUS.

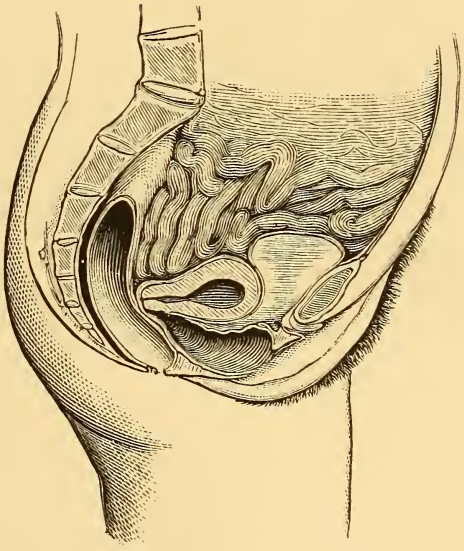
ANTE-VERSION is the term given to the position of the uterus when displaced nearly transversely in the pelvis, the os uteri looking backwards towards the sacrum, and the fundus directed towards the pubis, or directly against it and the urethra and bladder. In ante-version the fundus is moved downwards and forwards, and the os carried backwards, or backwards and upwards.

If the case is one of ante-flexion we find the os uteri in a normal position, or a little backwards and downwards, the fundus pressing forwards and bent upon the cervix, and, consequently, pressing upon the bladder and carrying it downwards, as well as causing some prolapse of the anterior wall of the vagina.

Some authors contend that ante-flexion and ante-version of the uterus do not and can not exist. In this position I am sure they are much mistaken, as these displacements are of frequent occurrence. 'T is true, the normal position of the uterus is with the fundus slightly inclined forwards. But normally it does not press against the bladder with any considerable force, and does not prolapse the anterior wall of the vagina. Sometimes in ante-flexion the amount of prolapse is very considerable, pressing the cervix down against the posterior portion of the floor of the pelvis; at other times, the flexure is quite abrupt, and not accompanied with much prolapse. The most common seat of an ante-flexion is at the juncture of the cervix with the fundus.

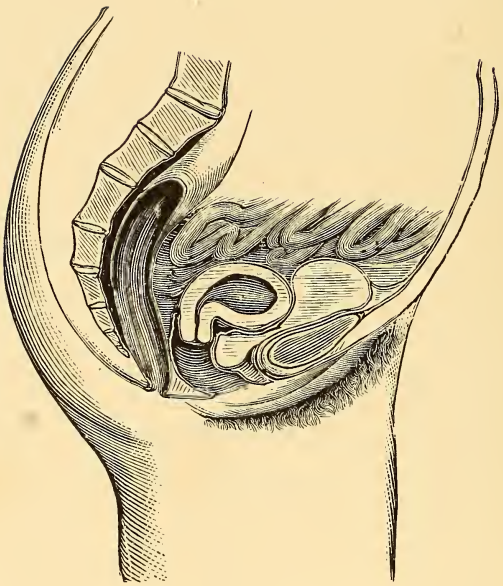
The effect of ante-version is to cause sterility, dysmenorrhœa, and dyspareunia. According to the best and most com-

Plate XXI.



ANTE-VERSION OF THE UTERUS.

Plate XXII.



ANTE-FLEXION OF THE UTERUS.

plete statistics I can gather, over fifty per cent of sterile women have ante-version or ante-flexion of the uterus. My experience is that in ante-flexion the angle of flexure is more acute in the majority of cases than in retro-flexion.

Etiology.

The principal causes of ante-version and ante-flexion are the weight of the intestines resting too heavily upon the uterus, owing to the relaxed condition of their supports, conjoined with lifting or a sudden jolt or fall; the thickening of the anterior wall of the fundus from inflammation, or the presence of tumors in the anterior wall; the use of corsets tightly laced; the weight of clothing supported by a band around the waist, pressing the intestines down upon the uterus; ante-version being produced when the uterine tissues are firm, and ante-flexion when they are relaxed. If the uterus maintained its normal height in the pelvis, and was ante-flexed upon the bladder, the filling of the bladder would temporarily replace the uterus; but it is found by experience that instead of the bladder becoming filled, and replacing the ante-flexion, the ante-flexion prevents the filling of the bladder, and its walls are so compressed and irritated that the bladder will contain but little before it contracts to expel what is in it.

Faulty nutrition in the anterior portion of the cervical juncture with the fundus has been thought to be a cause of ante-version, but the theory is hard of demonstration. The condition of sub-involution and pregnancy may also tend to cause ante-version and ante-flexion.

Diagnosis.

The symptoms which may lead us to think of anterior displacement of the uterus are more especially, irritation of the bladder, frequent and painful micturition, dysmenorrhœa with leucorrhœa, dyspareunia, etc., in connection with the ordinary symptoms of displacements, both general and local. Frequent

and painful micturition may, however, be due to retro-version or inflammation of the bladder. Hence, it will require a physical examination *per vaginam* to determine the exact nature of the displacement.

In ante-version we discover by digital examination that the os uteri is displaced backwards, and looking towards the hollow of the sacrum. The fundus is felt (through the anterior vaginal wall) in the upper part of the vagina as a globular or pear-shaped body, generally pressing the urethra hard against the pubis. The axis of the vagina is changed from an oblique upward direction to one almost transverse from before backwards.

In ante-flexion we find the os generally somewhat lower in the vagina than normal, pointing downwards, but situated a little further backwards than in the natural state. The fundus of the uterus may be felt apparently occupying a transverse position at nearly a right angle with the cervix. To positively determine the uterus is ante-flexed, it is necessary to introduce the uterine sound (which can be done if there if no possibility of pregnancy). If the sound enters the body of the uterus with the point only slightly inclined forwards from the direction necessarily given it in its introduction into the cervical canal, we may know that the bunch which we first thought to be the fundus is a tumor in the anterior wall of the fundus, an enlarged and displaced ovary, an induration resulting from cellulitis, or a large cystic calculus, and not a case of ante-flexion at all. But should we find that the sound is arrested when inserted into the cervix about an inch, and we have to turn it abruptly forwards in order to enter the cavity of the body of the uterus, we may know the case is one of ante-flexion.

Treatment.

The first object to accomplish in the treatment of *ante-version* or *ante-flexion* is to take off from the uterus the

weight of intestines pressing upon it. This may be done by placing the patient upon her back or side, with her hips elevated and the shoulders low. We may next proceed to correct the displacement.

If it be ante-version, we may attempt to pass one or two fingers behind the os uteri and draw the cervix forwards. If we can not do this readily, we may hook the point of the curved uterine sound into the os, guiding the instrument by the fingers already in the vagina, and as we draw the cervix forwards allow the sound to ascend in the cervical canal, and proceed in this way till the uterus is turned and lifted into place. We now withdraw the sound and insert into the vagina a common glass speculum of suitable size so as not to distend the vagina so much as to be painful, and allow it to remain for several hours to admit the atmosphere freely; or a watch spring ring pessary may be inserted to accomplish the same object. The patient should be much of the time with the knees drawn up and separated. The recumbent position on the back must be maintained for some time, or a nicely adjusted abdominal supporter may be applied, and the patient be allowed to rise.

In ante-flexion, after we have introduced the sound into the uterus we turn its point backwards gently, to lift up the fundus, or use the uterine elevator for the same purpose. After it is replaced, we may treat the case similarly to the one affected with ante-version, which has been replaced. The passing of the electrical current through the uterus, using the finger for an electrode, while applying it to the cervix, is an efficient means of strengthening the relaxed tissues in these cases.

In those cases which are continually relapsing, it is necessary sometimes to introduce the soft rubber pessary posterior to the os uteri, and inflate it, and remove and replace it every few days for some time, still using the *abdominal supporter* and such remedies as the case seems to demand. I

much prefer, however, to *entirely dispense with all vaginal pessaries*, and I have found that we can do so in most cases where we have an intelligent patient who will co-operate in the treatment, excepting in a few cases where adhesions have formed which require some regular, even force to break up and stretch, which may sometimes be done when they are not very firm.

Much care and attention, as well as perseverance, is requisite in these cases, in keeping the organ *in situ*, and in keeping it from being pressed upon by the intestines, and allowing a free ingress of the atmosphere into the vagina. Remedies must not be overlooked. There is very often a condition of congestion of the parts in these cases which gives rise to the feeling of tenderness, weight, and bearing down sensations which indicate *Bell.* as the remedy; the pain in the small of the back and temples indicates the need of *Nux.;* pain in the ovarian region indicates *Cimicif.;* sharp, cutting pains anywhere, *Bry.;* a twisting, boring pain in the bowels around the navel. *Colocynthis. Secale, Canthar., Cal. carb., Cubebs, Sulph., Rhus, Puls.*, etc., should also be studied, as they are sometimes indicated in these cases.

Sponge Tents.—The need for the use of sponge tents may arise in cases of ante-flexion as in retro-flexion, to dilate the strictured uterine canal, and relieve dysmenorrhœa. They or bougies may be used to establish the canal of proper size.

Rest, proper diet, and good air, bathing, etc., are never to be forgotten.

The Speculum.—This instrument is not needed either in the diagnosis or treatment of these displacements.

Pessaries.—Pessaries have been the bane of the profession, and the sooner the whole batch of hard pessaries are destroyed the better for our own reputation and the comfort of our patients. How many ulcerations, fistulæ, and inflammations they have produced the judgment day can only reveal. They are to be placed with caustics, venesection, the

actual cautery, indiscriminate incisions of the cervix, and the like, and be condemned together. The cases benefited, do not equal those injured by them.

Warm Vaginal Injections.—Injections of warm water given in the way of a douche, are often beneficial in those cases where there is a supersensitive condition of the pelvic viscera. They may be used once or twice a day for a week or two if necessary. *Astringents* and *medicated washes* are not needed, and often do harm. The warm hip bath, used with judgment and moderation, is often of service.

Lateral Displacements.

Lateral displacements, existing uncomplicated with other disease, are seldom found. They can scarcely occur, except when there is disease of one of the broad ligaments, adhesions after cellulitis, a tumor in the side of the fundus, or disease of the ovary. As displacements they deserve no more than a passing notice. The difficulty which causes them, being of so much greater importance, needs the special treatment. When, however, we find a case of lateral displacement, we should consider the causes producing it.

Diagnosis.

Physical examination is always requisite to diagnose a case of lateral displacement. As the fundus would not press upon any important organ or viscera in this displacement the symptoms are not as marked as in anterior or posterior displacements; still the difficulty which causes the displacements may give rise to marked symptoms peculiar to uterine disease. By making a digital examination *per vaginam* we find the os directed towards one side of the pelvis, and by introducing a sound into the cervical canal up to the fundus, we find it inclining towards the opposite side. This determines the existence of lateral displacement, but much more careful examination is necessary to determine the

causes of the displacement. It is unnecessary to go over them all here; search should be made in the diagnosis of ovarian tumors, fibroma of the uterus, pelvic cellulitis, hæmatocele, etc., for the symptoms which indicate the difficulties named.

Etiology.

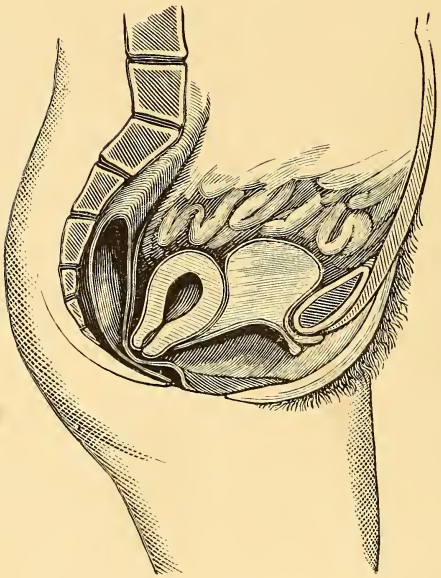
The existence of disease of one of the broad ligaments may draw the uterus to one side. The wearing of badly adjusted pessaries, thickening of the walls of one side of the uterus from inflammation, or the development of a tumor in the walls of one side of the organ may cause this displacement.

To these causes may be added faulty nutrition and congenital malformation. The development of a small tumor of the ovary, or a fibroma in the side of the uterine walls, would drag the fundus towards the affected side, while the large tumor in these localities would press the fundus to the opposite side of the pelvis. Adhesions formed after cellulitis will also tend to cause a lateral displacement of the uterus.

Treatment.

The treatment of lateral displacements must mainly consist in the removal of the causes which produce them. No special treatment as displacements is required—the main object of calling attention to them being to recognize the fact of their possible existence, and suggest what they may indicate as regards other ailments, thereby aiding in the diagnosis of the prime and main difficulty. Attempts to replace and retain *in situ* a lateral displacement without removing the cause would simply be lost time, and would expose the ignorance of the physician, as well as possibly be injurious to the patient. For if we carefully note the causes we will see that most of them are beyond our control; and the others require treatment peculiar to themselves.

Plate XXIII.



PROLAPSE OF THE UTERUS AGAINST THE PERINEUM.

CHAPTER LII.

PROLAPSUS UTERI AND PROCIDENTIA.

These terms are used to designate downward displacement of the uterus, *prolapse* being applied to the downward displacement of the womb while it is still within the pelvis (see Plates XXIII and XXIV), and procidentia when the organ is so much displaced as to appear external to the os vaginam. (See Plates XXV and XXVI.)

Prolapse may exist in various stages, from the slight downward displacement to the extent of resting against the perineum.

Procidentia is called partial when a small portion of the cervix appears in view between the labia; and complete when the whole organ is external to the os vaginam (Plate XXVII).

To whatever extent the displacement exists the bladder, ovaries, Fallopian tubes, and small intestines are also displaced downwards in similar proportion; and I may say the vaginal walls, and in some instances the rectum and lower portion of the colon also, are displaced.

The sufferings which women endure from *prolapsus uteri* and *procidentia* are very great, and the effect upon the general health is sometimes disastrous. At other times we meet with cases where the system seems to become tolerant of the displacement, and very little effect is produced upon the general health of the patient. I have seen women who had been about their work for years with the uterus dangling between the limbs, or retained in the vagina with a **T** bandage, and complaining very little of the displacement. Many women suffer from partial prolapse when their difficulty is

not discovered, even after their physician has made a vaginal examination (the patient being in the reclining posture).

The patient should stand during the examination, and the physician be well experienced, or error of diagnosis may result.

Etiology and Pathology.

Upon this topic I must differ in a measure from all who have written on this subject, so far as I am aware. I do this with some reluctance, although I believe I am right, for I well know the slowness with which the profession adopts a new idea in pathology or etiology.

Before offering my own ideas I will quote from the most recent writers upon the subject. Dr. Barnes* says: "The leading fact in the history of prolapse is that of imperfect involution after labor. If this great fact be kept steadily in mind, and the lessons in practice which it dictates be carried out, many cases of prolapse will be prevented altogether, and many more will be arrested in their early and curable stages."

Dr. Emmet† says: "The immediate causes of prolapse are threefold—either some growth above the uterus crowds it downward, or there is an increase of weight in the uterus itself, or there is a want of proper support below. The first step in the process is usually to be traced directly to the absence of support for the vaginal walls at the outlet of the passage, from which a further prolapse is soon induced by the increase in weight of the organ, resulting from its malposition."

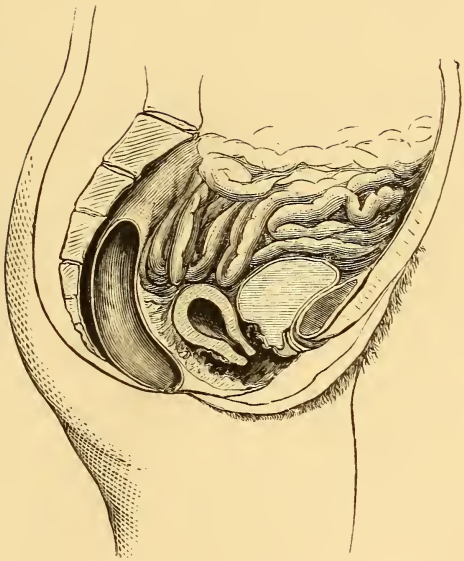
"To whatever cause the increase in size and weight of the uterus may be due, the organ will settle into the pelvis just in proportion to the additional burden" (evidently meaning the weight of the uterus).

Now, that prolapse is caused almost entirely by sub-involution of the uterus after labor is disproven, from the fact

*Barnes's "Diseases of Women," page 541.

†Emmet on "Diseases of Women," p. 366.

Plate XXIV.



PROLAPSE OF THE UTERUS.

that very many women who have never been pregnant suffer from this displacement. This is particularly the case with girls and young women who are employed as clerks in stores, or as teachers, or in any employment where they stand for hours at a time. Domestics do not suffer as much, for the reason that they are moving about and change their position often; they walk, sit, or stoop over, at short intervals, and the weight of the abdominal viscera does not press down into the pelvis so directly and continuously as when standing erect and nearly still. These women do not as a rule enter a hospital, and it may be due to the fact that married women among the poorest class more frequently are found in *hospitals* that the gentlemen quoted have arrived at the conclusions which they have.

Dr. Emmet's suggestion of want of support at the vaginal orifice being a cause of prolapse of the uterus, would intimate that which we find he afterwards teaches, that lacerations of the perineum are one of the most common causes of prolapse; in fact, he says (page 367), "that in practice we will have to deal with childbirth as the most common of all causes in producing procidentia, and in all these cases the perineum will be found extensively lacerated."

It is true that, in many cases in which there is procidentia, there is a ruptured perineum; but I deny that the ruptured perineum is the main cause of the procidentia. I am of the opinion that other and more philosophical reasons can be assigned.

The floor of the pelvis (the perineum) when intact would in a measure resist the further descent of the uterus when it had become prolapsed enough so that the os rested upon it (see Plate XXIII). The perineum then conjoined with a contracted os vaginam (which would indicate a long perineum) would offer some considerable resistance to complete procidentia. So would a T bandage if well applied; but the absence of a T bandage would hardly be given as a cause of

procidentia. Normally the perineum is no more a support of the uterus than is a T bandage. The uterus in its natural position is about four inches above the perineum, at the top of the vaginal cavity; the vaginal walls are loose and flabby, distensible with the slightest force. If the vaginal walls stood up like pieces of paste-board, and rested upon the perineum, the taking away of their support might allow of the prolapse of whatever rested upon them; but such is not their nature. The *vagina* is retained in place by means of its attachment to the cervix uteri above, and to the cellular tissue on its sides, which cellular tissue is attached to the rectum, bladder and walls of the pelvis. Separate it from the attachments I have named, and it will drop down at once to the vaginal outlet (when the subject is placed erect).

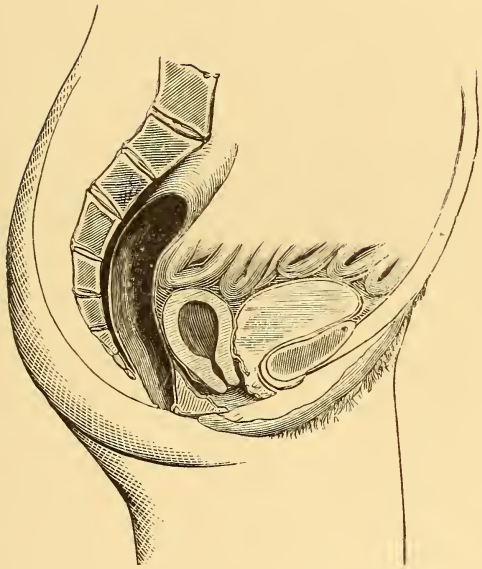
In so far as the attachment of the vagina to the cellular tissue and uterus is firm and normal, it holds the vagina *in situ*, if there is no abnormal weight in or upon it. But, we think, the uterus is sustained mainly by the folds of peritonæum constituting the broad ligaments, the cellular tissue surrounding it and the vagina, and by atmospheric pressure coming in through the vagina.

Heavy lifting, tight lacing, forcing the intestines down upon the uterus by straining in labor or at stool, and stretching and weakening the attachments of the intestines serve to produce prolapse directly.

The conditions present after confinement are enlargement of the uterus, it is true; sometimes a condition of sub-involution is present for a long time, but it does not necessarily produce prolapse or procidentia, as I have seen hundreds of cases where there was sub-involution of the uterus which had been present for years, and complicated with endo-metritis to the extent of causing much suffering, and still there was little or no prolapse at all.

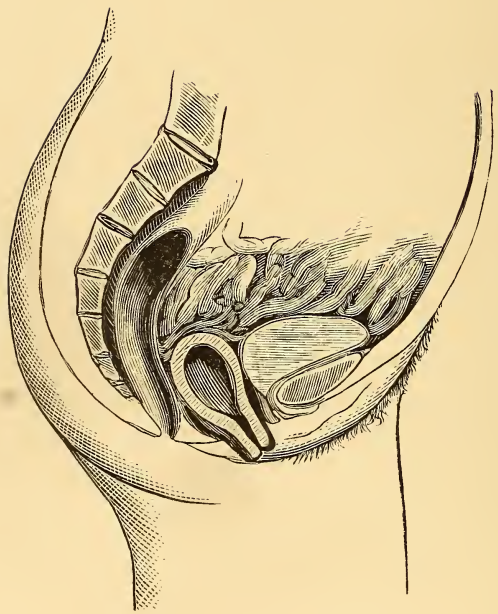
These cases showed an enlargement of the uterus to the extent of measuring from three and a half to four inches in

Plate XXV.



PARTIAL PROCIDENTIA UTERI.

Plate XXVI.



PROCIDENTIA, WITH ELONGATION OF THE CERVIX UTERI.

the uterine cavity, as indicated by the uterine sound. Why did they not have prolapse? They have weight enough in the uterus and often a lacerated perineum. I answer, they did not have prolapse, because their intestinal supports were firm and normal, and the broad ligaments were not relaxed, the cellular tissue around the vagina was normal, and the uterus had no superincumbent unnatural weight to support.

Every woman is more liable after confinement than before to have prolapse, it is true; but why? Not because of the sub-involution of the uterus, for very few women have a complete and perfect involution of the uterus in the ten days they commonly maintain the recumbent position, and if enlargement of the uterus was the cause of prolapse, all should have it.

Again, in the growth of uterine polypi and intra-mural fibrous tumors of the uterus, do we find the uterus prolapsed? Seldom, if ever. Why is this? The weight of the organ is certainly as great, or greater, than in most cases of sub-involution. I have discussed this point at some length under Displacements (in general), but I deem the subject of sufficient importance to demand attention in this connection also.

In gestation, during the last months, the intestines are crowded upwards by the large size of the gravid uterus; their attachments become weakened and stretched, the broad ligaments of the uterus also relax. Now, after the expulsion of the contents of the uterus in labor, the intestines will press heavily upon the uterus, on account of the relaxed condition of the mesentery. If the erect posture should be at once taken, the broad ligaments being relaxed, they offer no resistance, and downwards the uterus is pressed, dragging with it the upper portion of the vagina; and if the uterus retroverts in its downward way, the cervix may emerge from the vagina, and if the pressure is sufficient the procidentia

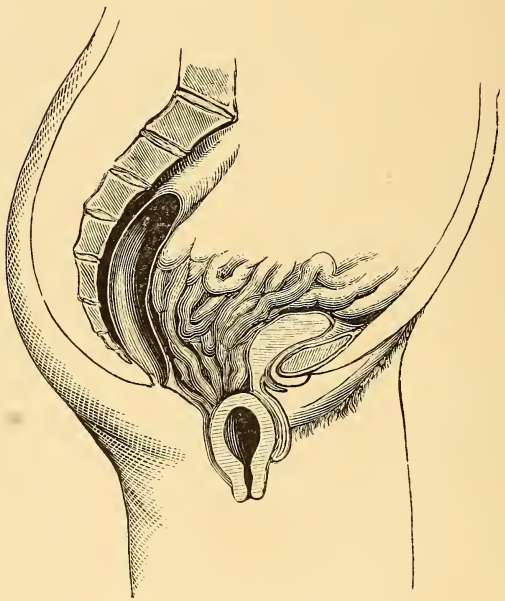
may become complete, for the vagina is always dilatable if not already relaxed, and the uterus may become completely expelled from the vagina, although there is no laceration of the perineum.

If there was no perineum, and the patient did not wear a T bandage, of course, it would come out a little easier than if they were there to offer resistance. Hence, we have to acknowledge that the laceration of the perineum in small part allows of complete procidentia, but we do not concede that it is in any way concerned in causing or allowing of prolapse. Sub-involution does not in itself and alone cause prolapse, we think; but accompanying some cases is a condition of the broad ligaments and abdominal organs caused from inflammation (which often is the cause also of the sub-involution), which tends to produce a downward displacement. The sub-involuted condition may co-exist with prolapse, but I deny its being the principal cause of it.

In these cases where lacerations occur, there have usually been present the most intense expulsive pains. These severe bearing down efforts tend to displace all the abdominal viscera downwards in any case of labor, and where they are strong enough to cause a laceration of the perineum, or to exhaust the patient, so that forceps have to be used, the downward displacement of the intestines must be considerable, on account of the straining and the atonic condition produced by the general exhaustion incident to labor. Straining at stool from constipation tends to produce prolapse, which may come on gradually, forcing down the intestines upon the uterus and weakening the broad ligaments.

The straining from efforts of the uterus and voluntary muscles of the abdomen to expel a polypus from the uterus may also in the same way cause prolapse. Tight lacing of the chest and upper part of the abdomen tends to force the abdominal organs downwards upon the uterus, and produce prolapse. Dr. Emmet says, page 368: "In early life, even

Plate XXVII.



COMPLETE PROCIDENTIA UTERI.

with extensive lacerations of the perineum, the formation of a procidentia is not the rule, unless the woman is exposed to the risk by accidents, or from the character of her occupation." He does not explain why this may be in early life and not when older.

To my mind the explanation is to be found in the fact that in advanced years the muscular tissues—in fact, all the tissues—are more relaxed, and do not so readily regain their normal condition after delivery, as when younger. Hence, the fact which he gives regarding the immunity of young women from procidentia, even though suffering from lacerations of the perineum, is the best of argument in favor of the position which I hold, that laceration of the perineum is not the principal cause of procidentia, though Dr. Emmet teaches, in another place, that it is, as I have quoted him. (Page 367, Emmet's "Prin. and Prac. Gynæcology.")

In the descent of the uterus the vagina becomes partially inverted, and in complete procidentia it is completely so, and must necessarily either drag down into its inverted cavity the bladder and rectum, or must become torn loose from its attachment to the cellular tissue. It is usual that the bladder is drawn down partially, and the course of the urethra is changed to a downward direction instead of upward. The small intestines are often found in the sac formed by the inverted vagina (see Plate XXVII). Their agency in causing the displacement seems not to have occurred to the writers who have mentioned the fact of their presence down in this sac ten or twelve inches below their normal position. *Calculi* have sometimes formed in the bladder while thus prolapsed, and could be rattled together with the hand (Dr. G. Raper in Barnes's "Diseases of Women," page 545).

In this condition of the bladder there is a great tendency to cystitis, owing to the difficulty of voiding the urine, which causes a retention of stale urine, and this tends to produce cystic inflammation.

At first it might be thought that very fleshy women would be more liable to prolapse than the spare built. Such does not appear to be the case in my experience, and is explained, I think, from the fact that most of the adipose is deposited exterior to the muscles, and although producing a pendulous abdomen does not cause greater pressure to be exerted upon the uterus than in those not fleshy, unless they should attempt to lace themselves down to a small size, in which case there would be a great tendency to produce some form of displacement of the uterus. Fleshy women have usually good assimilative power and good digestion, and are well nourished, while in the slender, spare built woman this is often not the case; hence, the fleshy woman is not on that account more liable to prolapse.

Diagnosis.

In some women the uterus is situated abnormally low in the pelvis, and this condition appears to be congenital, as its deviation from the ordinary position produces no suffering or inconvenience. On careful examination, however, some of these cases will be found to be affected with elongation of the cervix, which gives the appearance on a careless examination of a depressed condition of the entire organ. The history of these cases will usually show a previous cervicitis, which may have subsided so that little or no pain is experienced. If married, this condition is likely to produce sterility; but the consideration of this subject has been mentioned in connection with *sterility* and *elongation* and *hypertrophy* of the cervix. Most patients afflicted with prolapse suffer from bearing-down pain, a sense of weight in the pelvis, pain in the small of the back, frequent desire to micturate, etc. The severity of these symptoms depends much upon the suddenness of the displacement. When considerable prolapse comes on suddenly these symptoms are more acute than when the displacement has come on gradually.

Sympathetic Symptoms.

Often in this displacement we have sympathetic symptoms affecting the stomach, producing nausea (especially on rising), dyspepsia, gastrodynia, heartburn, etc. It also causes a variety of symptoms in the brain and spinal cord. Very frequently there is pain in the back of the head and neck; sometimes burning heat on the top of the head, dimness of vision, pain and tenderness over the entire spinal column, etc. Sometimes we have hysterical symptoms, a changeable mood, crying and laughing in rapid succession, hysterical or imaginary pains in various parts of the body, and sometimes a condition of hyperæsthesia of a part of the body, or sometimes of the whole body. Hysterical spasms often supervene. These symptoms are usually aggravated or produced at or about the menstrual period. In other cases, instead of hyperæsthesia there is a loss of sensibility in a part of the body, sometimes affecting one side of the body and not the other; sometimes there is a loss of both sensibility and motion in one limb or in one-half of the body. In still other cases there is a spasmodic condition of the œsophagus, making it almost or quite impossible to swallow. Palpitation of the heart, dizziness, fainting spells, are also indicative of this displacement. There is usually considerable pain and tenderness in one or both iliac regions, caused from the inflammation which is often awakened in these cases from cold, as well as the irritation caused by the straining of the folds of the peritonæum and the laceration of the cellular or connective tissue, which often takes place.

Among the symptoms sometimes manifested by nervous women affected with prolapsus, might be enumerated nearly or quite all the hysterical manifestations which are ever witnessed. These are not, however, peculiar to prolapse of the uterus, but are sometimes caused from other displacements, as

well as any form of pelvic inflammation or spinal irritation. The only positive diagnosis is to be made in these cases by physical examination. First, a digital examination *per vaginam* is to be made while the patient is standing, if convenient. This examination reveals the os depressed in the pelvis in some measure. (See Plate XXIV.) It may be but slightly prolapsed, or it may be found resting upon the perineum. (See Plate XXIII.) Or, in case of partial procidentia, the cervix is found pressing out between the labia, and if complete the whole organ is found external to the body. (See Plate XXVII.)

Differential Diagnosis.

The diseases and conditions which might lead to an error in diagnosis are a uterine fibrous pedunculated polypus, which has been expelled from the uterus, and is lying in the vagina, or is pressed out external to the vulva. The cervix, in complete procidentia, and in some cases of prolapse, is inflamed and enlarged so as to be out of all proportion to its normal size, and hence more care is necessary in its diagnosis. The distinguishing diagnostic point is the presence of the os uteri in the protruding or prolapsed mass. We must not be misled by a dent or fissure, and conclude it is the os till we make sure by the introduction of a probe or the uterine sound, that the cervical canal is there within the mass, as the polypus might have the fissure or dent in its dependent portion simulating the os quite perfectly. If the case was one of complete procidentia we could not pass the finger up by its side into the vagina, as the vagina is inverted and covers the protruding mass in its upper portion; but if the mass was a polypus with a long neck attached to the uterus, we could freely pass the finger up into the vagina all around the pedicle, and discover the os surrounding it as it entered the cervical canal.

Diagnosis from Cystocele and Rectocele.

These conditions may cause the patient to imagine she has procidentia, but it should not take the physician long to make out the correct diagnosis. The soft, fluctuating feel of these conditions, the absence of the os uteri, and finally passing the finger into the vagina and finding the os and cervix in position, settle the question.

The Partially Delivered Fœtus.—The partially delivered fœtus with a breech presentation may simulate prolapse. In both cases there may be backache and bearing down pains. But in prolapse there is usually no hemorrhage, while in a miscarriage there is. By passing the finger up around the mass in the vagina, to feel the anterior and posterior *cul-de-sac* of the vagina, we discover the os surrounding the mass, and by a little effort we dislodge it and bring it away.

The Partially Delivered Placenta.—This may slightly resemble procidentia, in a case where we are not informed of a delivery having occurred. The placenta feels spongy, quite in contrast to the firm, rounded feel of the uterus. A little care will prevent an error of diagnosis.

Diagnosis from Inversion of the Uterus.

The condition of chronic complete inversion, perhaps, simulates complete procidentia more perfectly than any other condition (see chapter on Inversion as to differential diagnosis).

Treatment.

Regarding treatment, I differ somewhat with most authors on diseases of women, Prof. Guernsey and Dr. Eggert teaching that remedies are alone the means of cure, and most other writers placing the greatest importance upon pessaries, narrowing the vagina by operation, restoring a lacerated perineum, and astringent vaginal washes, etc. I should, perhaps, except *Prof. Ludlam.* In his work giving a record of many

interesting cases, he incidentally mentions prolapse, and gives some remedies indicated, and intimates that other treatment is necessary, the description of which he seems to have inadvertently omitted. He mentions postural treatment in prolapse complicated with erosions of the cervix, with which I fully accord.

Those physicians who believe in the cause of prolapse being want of tonicity in the vagina, and the sub-involuted condition of the uterus, and that procidentia is mainly due to a lacerated perineum, naturally attempt to cure the difficulty with astringent washes in the vagina, by pessaries to support the uterus placed in the vagina, and in operations to lessen the size of the vagina, and cure the laceration of the perineum.

Of the success of this plan we may judge from Dr. Emmet's own words,* and as he is a representative man of the old school, with the sanction of the entire allopathic profession, I believe we may well take his words as representing the school to which he belongs. He says, after describing the operation: "This plan of operating disposes, most effectually, of all excess of tissue, and when union has been obtained the support is perfect. But with all its advantages one difficulty remains which I have never been able to overcome. In consequence of the traction exerted in opposite directions the three flaps brought together almost always separate to some extent in the angle A, after the sutures have been removed, and this necessitates another operation."

With this language he closes the discussion of the treatment of "procidentia and prolapse," after having devoted ten pages to the description of the operation required. This is not very encouraging. Still in hospital practice these cases afford interest to a class of students who are ever clamorous to see operations. Dr. Emmet has omitted to give us a table, showing the *per cent* cured under his care, although his

*Emmet's Diseases of Women, page 283.

tables are elaborate in showing how many commenced to menstruate at various ages. The age at marriage, average number of children each had been delivered of, the kind of labor each had suffered, etc., etc., etc. (I am sorry he omitted the number of cases cured.)

He has, however, told us, on page 371, of an eccentric friend of his who claimed to cure every case among the negroes where he practiced, in ten days, by swinging them up in the knee-elbow position, and filling the vagina with a strong decoction of oak bark. Dr. Emmet says, the principle of treatment was correct, and he has it from others that the gentleman's claim to success was well founded. The treatment took off the weight of the abdominal viscera, replaced the uterus by gravity and atmospheric pressure, and the intestinal and uterine supports regained their normal strength. No supports in the way of pessaries or operations were used, and still, as Dr. Emmet acknowledges, his friend had most excellent success.

My wonder is that Dr. Emmet was not led to use the same principle of treatment, which he acknowledges is correct, and which *I believe to be the only true one.* He does, it is true, speak highly of the advantages of position and atmospheric pressure, on page 129 of his work, while writing upon the general principles of the treatment of displacements; but in the treatment of special displacements he omits the recommendation for this plan of treatment, and one would infer from reading his remarks upon the treatment of prolapse and procidentia, that the main thing was to support the uterus with a pessary, or sew up the vagina after cutting out a piece of its membrane.

OBJECTIONS TO ELYTRORRHAPHY, *or, taking out a piece of the vaginal membrane.* The first objection is, that it is unnecessary. The second, that it is liable to fail in most instances, as Prof. Emmet has acknowledged.* The third objection is,

*Emmet, Diseases of Women, p. 383.

that should pregnancy subsequently ensue, the narrowing of the vagina by the operation might interfere materially with the delivery of the child at full term, either preventing the delivery, or causing a laceration of the vagina to occur in its expulsion. In the very aged, or in those who have passed the climacteric period, this last objection is, of course, invalid; but the first two would deter me from the operation. There are other means of affording relief, if not a cure, in these older cases, of which I will speak hereafter.

The first and most important point in the treatment of prolapse, in my judgment, is to take off from the uterus all weight that may be pressing upon it. The wearing of corsets or clothing suspended from the waist must be forbidden. The weight of the intestines pressing down upon the prolapsed uterus must be removed by some means; and just here much ingenuity is required to adapt means to secure this end, in the variety of patients who come under our care. The knee-chest position, as practiced by Dr. Emmet's friend (previously mentioned), accomplishes the object; still we can not, in general practice, swing our patients up, as this gentleman did his negress patients (though I am sometimes tempted to do it). The reason of his great and rapid success probably lies in the fact that his cases were comparatively recent displacements in women of strong constitution and firm muscular development, rather young in years, and, consequently, the tonicity of the intestinal supports was soon restored, when every particle of strain and weight was taken from them.

Causing our patient to lie upon the side with the hips elevated for several weeks will accomplish about the same results. In those cases where their employment or circumstances make it necessary for them to be up and at work, some form of abdominal support is necessary. I prefer the *Improved London Supporter* for this purpose, giving attention to the fit of the instrument, and making sure that it acts as

an abdominal *supporter,* and not as an *abdominal compressor.* Daily cause the patient to assume the position on the side, with the hips elevated, for an hour or so, and, separating the limbs, press the uterus upwards with the fingers; then insert into the vagina a common, round vaginal speculum of suitable size to be readily retained. This allows of the free introduction of atmospheric air, and from its pressure it relieves the engorgement of the capillaries of the vagina and cervix, and presses the organ into position. Now, before the patient changes her position, apply the *Improved London Supporter* (see cut in Plate XII), so that when the patient assumes the sitting or standing posture the abdominal organs will be held up away from the uterus.

Use warm water vaginal injections daily, and such other treatment as the complications demand, with remedies used according to their indications, and the recent case of prolapse or procidentia will be, as a rule, speedily cured.

The chronic cases which have existed for years may require that some force be used by the physician to break loose attachments which often are found to have formed in the cellular tissues, binding the organ down in its unnatural position. In some cases these adhesions are so strong as to make it impossible to lift up the uterus by any means, and such attempts have to be abandoned. In other cases we may cause these attachments to gradually give way by the use, in the vagina, of the inflatable gum-elastic bag, which we may insert after pressing up the uterus as high as the attachments will allow, and then inserting the bag and inflating it as fully as possible with the tube, which is left external to the body. The air in the bag is retained with a stop-cock, or by means of a string tied tightly around the tube. This exerts a steady, but soft and gentle, pressure upon the uterus, carrying it upwards as high as the attachments will allow, and frequently causes them to give or relax and allow the uterus to be normally located. This means

is to be used with the patient in the knee-elbow or side position, and with the abdomen supported if she rise, as in the recent case. In some cases the physician will have to remove and reinflate the rubber bag every three days; in others, the patients can do it themselves.

In instances of lacerated perineum complicating the case, the perineal bond and compress may be needed to retain the inflated bag within the vagina and exert sufficient pressue to avail any thing in the removal of the attachments. The length of time which it is advisable to use this treatment to restore the uterus when partially attached in its abnormal position varies much; usually, however, not more than two or three weeks, and sometimes only that many days; but the use of the abdominal supporter should be continued for several months, especially if the patient has to go about or work much.

Dietetic and hygienic measures must not be overlooked. Attention to food, rest, sleep, exercise, clothing, bathing, etc., is always necessary. The bowels must be kept regular with enemæ of soap and water, if inclined to constipation, as straining at stool is particularly to be avoided in all cases of displacements, and especially in prolapse.

Treatment of Complete Procidentia.

In cases of complete procidentia which have become chronic, there are sometimes serious obstacles to the return of the mass even within the vagina. Sometimes the uterus and vagina covering it becomes inflamed, swollen, and œdematous. In this case the mass should be wrapped in a cloth well saturated with equal parts of *Glycerine* and *Tr. Hydrastis;* over this we may wrap a cloth wrung out of warm water, and over that again apply a dry flannel. If the œdema is not relieved in a few days, we may puncture the most swollen portion of the mass with a good-sized surgeon's needle in several places, and allow the serum and blood to drain away,

still continuing the local application just mentioned till the mass is much lessened in size, when the attempt at replacement should be made, first placing the patient in the knee-chest position or on the side, with the hips elevated and the body low.

After succeeding in replacing the mass within the body we should wait a day or two, keeping the patient in the side position, with the hips elevated, so as to allow the force of gravity to do all in its power to restore to position, not only the uterus, but the displaced intestines as well. We may then make further attempts to lift the uterus into its normal situation, having the patient placed in one of the positions mentioned. This can be readily accomplished in most cases with two fingers passed up into the vagina, after which the case is to be treated as directed for the recent case of prolapse, only bearing in mind that a longer time will be required in the treatment than is usual in the recent case, and that we are liable to be troubled with occasional relapses from the imprudence or carelessness of the patient.

Cases sometimes occur where the bowels have formed adhesions in the pouch formed in the pelvis in the descent of the uterus, bladder, and ovaries, on account of inflammatory action; and it may, hence, be impossible to replace these organs. Dr. Barnes* says: "The extreme pain which attends the attempt to return the procident mass into the pelvis is often due to some degree of inflammation having been set up in the peritonæum lining, the pouch into which the intestines descend, at the upper and back part of the womb, or of the peritonæal investment of the intestines themselves; and death may in these circumstances take place, with many symptoms of the same kind as attend upon fatal *strangulated hernia* or *ileus*." He further says: "Another cause of the bulk of the tumor, and of the difficulty in replacing it, arises from the presence of the intestines in the sac, which seldom

* Barnes's "Diseases of Women," p. 568.

reside there long without inflammation of their peritonæal coat being set up, not of so acute a character as to produce formidable symptoms, but matting their different coils together, and tying them firmly to the interior of the sac."

The only treatment which can be given these cases, where adhesions have formed, is palliative in character, if complete procidentia is present. This palliative treatment consists of holding up the protruding mass in a sling attached to a band around the hips, drawing off the urine with a catheter, if necessary, and treating any inflammation which may arise with those remedies most clearly indicated.

Restoring the Perineum.—In my opinion an operation to restore the perineum is never required in the treatment of procidentia. When the laceration includes the sphincter ani it is necessary to operate sufficiently to enable the patient to retain the feces; but for the purpose of preventing the return of procidentia it is valueless, or nearly so, unless we also cause such a constriction of the vagina as to make a descent of the uterus physically impossible. In this case the natural delivery of a child is impossible, and in some instances copulation even is out of the question.

Dr. Barnes,* of London, says of the operation to restore the perineum in these cases: "As we have seen, the posterior wall of the vagina and the perineum form a most efficient support for the anterior wall. Much benefit might, therefore, reasonably be expected from making good this part. Mr. Baker Brown was one of the earliest and most earnest advocates of this plan. A considerable number of operations of this class have been performed by him and others, and with varying degrees of success. But then there are clinical observations in abundance to prove that it is based upon imperfect appreciation of the cause of the prolapsus. In many of the cases, notwithstanding the narrowing of the posterior wall of the vagina and the union of the labia, much anterior

* Barnes's "Diseases of Women."

to the normal fourchette, the prolapse after a time returned. The true factors of the prolapsus remaining untouched, gradually the uterus made its way down again, and, distending, the new perineal floor appeared outside the vulva. Nor is the relief often permanent, unless the vulva be almost completely occluded. It has been seen that the small vulva and perfect hymen of the virgin are not an absolute safeguard against prolapsus. The narrowing of the vulva simply forms a shelf to receive the falling uterus."

PERINEORRHAPHY.—Perineorrhaphy is a name given by Prof. Thomas* to an operation for restoring the perineal body. The idea is to make by this operation a firmer and thicker perineum.

The operation consists in dissecting out a piece of vaginal membrane from the interior of the perineum. It may vary in size, according to the case, from two to three inches in length, and from one to two inches in width. And then place sutures so as to draw together the opposite sides of the vagina, thereby narrowing its capacity at its inferior extremity. The operation is not difficult; but still we do not recommend it, for the reason that we do not find need for it, and believe there are easier and better ways of treating prolapsus of the uterus.

ELYTRORRHAPHY.—Elytrorrhaphy is an operation for narrowing the vagina in its upper portion, which is about as useless as perineorrhaphy, though much more difficult. In the first quarter of the nineteenth century the operation was performed in England and Germany. In 1858 Prof. Sims† revived the operation, which had for many years fallen into disuse. The late Prof. A. G. Beebe reported, about five or six years since, to the Illinois State Homœopathic Medical Association, several successful operations performed by himself.

* Thomas's "Diseases of Women," p. 349.
† Sims's "Uterine Surg.," Eng. ed., p. 309.

The only cases in which we think the operation of elytrorrhaphy is allowable at all are those cases of quite old women who are troubled with procidentia uteri, and who, for some reason, prefer to be operated upon to having the trouble of using other suitable treatment.

The operation, to be of any use, must remove a large piece of the vaginal membrane so as to effectually narrow the canal to a very small size. In performing the operation we should remove a diamond-shaped piece of vaginal membrane, the longest diameter of which is lengthwise the vagina, for otherwise a pouch might be formed, in which would accumulate secretions which would become irritating by their long retention. There is liability to great hemorrhage from the large extent of surface required to be dissected off, and this class of patients are, as a rule, unprepared to stand the loss of blood, the effects of the anæsthetic required, and the operation.

I will not enter into a minute description of the steps in the operation. The student understands that the patient must be placed upon her side or back on the operating table, and an anæsthetic administered; that the vagina must be dilated with retractors held by assistants. He knows that a tenaculum will hook up the vaginal membrane, and that a scalpel will cut it, and that if he has skill enough he may dissect out a large piece of vaginal membrane and then stitch the opposite sides of the denuded space together with silver wire, as he would do in a case of vesico-vaginal or recto-vaginal fistula; that the stiches may well remain about the same time as when used in the treatment of fistula. His judgment should teach him that for at least two weeks the patient should remain in a horizontal position, etc., etc. So, if he ever feels blood-thirsty, and he has a patient wishing to be operated upon, he may go ahead and perform the operation of elytrorrhaphy.

There are authorities enough who justify and recommend

the operation. We, however, give the advice to use the homœopathically indicated remedies in prolapsus, and conjoin rational support to the abdominal viscera, supporting the uterus even (in cases of very old women) with the T bandage, a Babcock supporter, or the inflatable pessary, and allow the old ladies to live their few remaining days with all their vaginal membrane intact.

Remedies.

Great good is accomplished with remedies, especially when used in connection with the postural treatment in recent cases, and with young women. They are useful in any case, but strikingly so in some of the class just mentioned.

The remedies useful in prolapsus are not always used for their direct effect upon the uterus or its appendages, nor even upon the abdominal organs or vagina, for the reason that the sympathetic affections which are produced by prolapsus uteri are so numerous and varied that it is sometimes necessary to meet these symptoms with indicated remedies. We can not, therefore, expect to mention every remedy which might be useful in some particular isolated case, but will record those most frequently indicated; for, should we attempt to recount all the remedies which might possibly be of use, especially for the nervous symptoms and those of hysterical nature, we would have to make up quite a materia medica.

Local Remedies.—These we mostly discard, although in some cases the complications in these patients make a resort to them advisable.

In case we have *metritis*, *endo-metritis*, *leucorrhœa*, *cystitis*, *erosions* of the cervix, etc., some local applications to the uterus direct are of great benefit; but as we have discussed them under their appropriate chapters, we will not repeat them here, further than to mention the almost universal indication in these cases for the use of warm sitz baths, or

warm vaginal injections of pure water. These may be used daily in almost any case of prolapse or complete procidentia, with great comfort and benefit.

The remedies most frequently indicated internally are, *Nux, Aconite, Bell., Sepia, Cantharides, Secale, Puls., Lycopod., Colocynth., Aloes, Plumb., Arnica, Hyosc., Cimicif., Calc. carb., Can. ind., Dig., Ignat., Bry., China, Ars., Iris vers., Lilium tig., Sulph., Phos., Sabina, Calc., Phos, Aurum, Petroleum.*

Special Indications.

Aconite.—Tenderness of the cervix uteri; general congestive and feverish condition; tenderness in any part; suited to timid ladies; despondency, indicated especially in plethoric women; acute catarrhal conditions; great restlessness; loss of sleep; palpitation of the heart, etc., etc.

Arsenicum Alb.—Prolapsus, with erosions of the cervix; corroding leucorrhœa; great thirst; alternately feeling heat and cold; hot, but shivering; burning hands and feet; nausea; diarrhœa of a cadaverous odor; burning sensation in abdomen; great prostration of strength, with irritation of the mucous membranes, characterize this remedy.

Aurum.—Heaviness in abdomen, and coldness of hands and feet.

Belladonna.—Prolapsus, with pressure as though all the abdominal organs would be pressed down through the vagina; spasmodic pain in the uterus; inflammation of the uterus, with cerebral congestion; dullness of intellect; complete procidentia, with erysipelatous condition of the protruding mass; spasmodic cough; difficulty of swallowing, from spasmodic closure of the œsophagus; takes cold easily; bathed in perspiration; right side most affected; paralysis of one side of the face; sore throat; tonsils red and swollen; spasmodic twitching of some of the voluntary muscles; dilatation of the pupil; painful micturition.

Bryonia.—In prolapsus, with darting, piercing pains;

constipation; great nausea; nausea and pain, aggravated by motion. (Consult Coperthwaite's Mat. Med.)

Calc. Carb.— Prolapsus with leucorrhœa; light complexioned women of scrofulous tendency most benefited: distressing bearing down pain, with inflammation of the vulva; menses profuse and frequent; great emaciation with bloated abdomen; excessive adipose development.

Cannabis Indica.—Prolapsus, with jerking in the abdomen; profuse leucorrhœa; catarrh of the vagina, etc.

Cantharides.—Prolapsus with sterility; loss of sexual desire; pain at the base of the brain; constant desire to urinate; spasmodic condition of the larynx, with mucous stools; excessive sexual desire.

China.—Prolapsus after miscarriage, with great loss of blood. (For other indications, consult Burt's or Allen's Materia Medica.)

Colocynthis.—Prolapse with sharp cutting pains in the abdomen, especially around the navel; violent sciatic pain. with thick viscid urine.

Conium.—Prolapsus, with induration of the cervix; excess or want of feeling, accompanied with sterility.

Digitalis.—Prolapsus, with palpitation of the heart; difficulty of breathing; motion produces faintness; smell of food excites nausea.

Ignatia.—In prolapsus, with piles; pains shooting deep into the rectum; throbbing pain in occiput; hysterical symptoms.

Iris Versicolor.—Prolapsus, with burning distress in the stomach; watery, burning diarrhœa; very useful in cases afflicted with sick headache.

Kali Phos.—Prolapsus, with rheumatic pains; sufferings from great grief; diarrhœa; leucorrhœa; takes cold easily.

Lilium Tigrinum.—Prolapsus, with intense bearing down pains, with depression of spirits (a very useful remedy).

Lycopodium.—Prolapsus with constipation; straining at

stool; dryness of the vagina; sharp pains in the labia; flatulence; severe pain in the back; red sand in urine; tendency to hepatic disease.

Nux Vomica.—Pain in the back and head; bearing down pains in abdomen; constipation; indigestion; fetid leucorrhœa; irregular menstruation; too profuse menstruation; bad dreams; debility; trembling of the limbs; loss of appetite; cases complicated with piles or fissure of the anus; hemorrhage from the bowels; incontinence of urine and bloody urine; paraplegia, and effects following spinal irritation.

Petroleum.—Prolapsus, with troublesome diarrhœa; irritable temper; very useful in chronic inflammation of cervix; gastralgia; burning of palms of hands and soles of feet.

Phosphorus.—Prolapsus, with weakness; excessive, or lack of, sexual passion; corrosive leucorrhœa; great debility; constipation; cold extremities; nervous exhaustion.

Pulsatilla.—Prolapsus with scanty menstruation; sour stomach; menstrual blood thick and dark; tendency to fainting spells; indigestion; thick white albuminous leucorrhœa.

Sabina.—Prolapsus, with quivering sensation in abdomen; copious leucorrhœa; prolapsus, with threatened abortion; excessive plethora.

Secale.—Prolapsus with severe bearing down pain; fear of death; melancholy, accompanied with passive hemorrhages from the uterus or rectum.

Sepia.—Prolapsus, with painful pressure in the vagina; burning, stitching pains in the neck of the uterus; complete procidentia; profuse leucorrhœa; troublesome itching of the vulva; very sensitive to cold air; sad, dejected mood, with fetid urine depositing a clay-colored or reddish sediment, which adheres to the vessel as if burnt on; dyspareunia or vaginismus; bad smelling leucorrhœa; nausea in the morning; spasmodic dry cough, etc.

CHAPTER LIII.

LACERATION OF THE VAGINA—LACERATION OF THE PERINEUM—ULCERATION (TUBERCULOUS, CANCEROUS, AND SYPHILITIC).

LACERATION of the vagina occurs most frequently as a result of labor where the vagina is not well relaxed and the uterine contractions are very strong. Laceration of the perineum is frequently complicated with laceration of the vagina when it is produced from this cause, or violent traction in delivery with forceps, or by pedalic version.

Laceration of the vagina may occur from other causes, as the breaking in the vagina of a glass vaginal syringe, or by being hooked by an animal, or falling upon something stiff and sharp. Dr. James* reports a case where a woman was impaled upon the prong of a hay fork, which passed between the cervix uteri and the rectum, penetrating the abdomen as far as the ribs. (The lady recovered.) Gotthardt† reports a case of spontaneous rupture of the vagina from a fall.

Lacerations from traumatic causes usually implicate the bladder, uterus, rectum, or peritonæal cavity, causing some form of vaginal fistula.

Ulceration of the vagina is due in many instances to the long continued pressure of the head of the child in the pelvis during confinement, and it may result from the wearing of hard pessaries. The various fistulæ of the vagina are liable to result from these ulcerations.

Syphilitic and tuberculous ulcerations are not likely to cause fistulæ, being mainly confined to the mucous membrane of the vagina, and occurring, in connection with other man-

* Boston Gyn. Jour., Vol. 3, p. 175.
† Weiner Med. Woch., 1869, No. 94.

ifestations of these diseases, in other parts or organs of the body.

Cancerous ulceration of the vagina is usually the result of its extension from the cervix uteri, and may destroy all the adjacent organs. The cancerous cachexia is observed in these cases, characterized by the yellowish brown, sallow, wrinkled condition of the skin all over the body.

Treatment.

In case of lacerations of the vagina, which affect the vaginal membrane only, injections into the vagina of warm water, to which a little of the *Tr. of Calendula* is added, is all the treatment required. In cases where the peritonæal cavity is penetrated the exclusion of atmospheric air to as great an extent as possible should be attempted, by wearing oiled silk over the external genitalia, held in position with a compress of cloth and a T bandage, after stitching the laceration together with silver wire interrupted sutures, and keeping the patient lying on her side with the hips elevated.

When the bladder or rectum or perineum are implicated, they are to be treated as directed under the heads of lacerated perineum, vesico-, and recto-vaginal fistulæ.

Syphilitic ulceration, as well as the tuberculous and cancerous require the same treatment as when occurring in other localities.

Fissures of the Vagina.

Fissures of the vagina may exist around the os vaginam, as a result of violent coitus, the use of a speculum of too large a size, or may be the result of slight lacerations in confinement. Ordinarily they heal readily, but, in some cases, owing to the want of plasticity of the blood, or on account of frequent injury, they become chronic, and show no disposition to heal. In such cases the sharp-pointed stick of *Argentum nit.*, applied to the base of the fissure once in three days, and smearing the parts with *Basilicon Ointment*, is the way to effect a

healing rapidly. The general condition of the system must not be overlooked, and remedies which are homœopathically indicated by the symptoms should be given. The parts may be bathed with tepid water frequently, though gently. Sexual congress must be strictly prohibited till the fissures are well.

Laceration of the Perineum.

Laceration of the perineum takes place in cases of rapid deliveries, where the vagina is not well relaxed, and from undue traction upon the head of the child in delivery by forceps, or in pedalic version where the head of the child is large, and the vagina not completely relaxed; and from the unrelaxed condition of the vagina in natural delivery, where the head of the child distends the perineum for a long time, cutting off the circulation of the blood from the distended tissues. Slight lacerations quite frequently occur, and heal without special treatment.

The lacerations of the perineum occur in various degrees, from the very slight to complete laceration of the perineum, implicating the rectum and dividing the sphincter ani. This throws the vaginal and rectal outlets into one common passage. In these extensive lacerations, the vaginal wall is lacerated from one to three inches. The feces and flatus from the bowel can not be retained, and pass away involuntarily and unconsciously.

Laceration of the perineum occurs as a result of external violence occasionally. This accident may happen in this way to young girls or old women as well as the middle aged.

Laceration of the perineum most frequently occurs in women who are being delivered of their first child, and if the lady is middle aged, the delivery of her first child is more hazardous in this respect than when younger in years. Of course, lacerations do sometimes occur in women who are quite young, and have had several children previously. This may result from their previously having had a slight lacera-

tion, which, in the healing, left a cicatrix which would not give or relax, and hence results an extensive laceration. Possibly the midwife is to blame, in some cases, for allowing labor to progress rapidly while the tissues are rigid about the vaginal outlet.

Inattention to giving the head of the child proper support while passing the perineum may cause a laceration, even in those cases where there is a good degree of relaxation of the perineal and vaginal tissues.

Diagnosis.

After a laceration of the perineum the patient complains of a smarting, burning pain in the parts, even if the laceration be slight. When it is extensive, the pain and smarting is usually severe. These complaints made by the patient should indicate to the medical attendant the necessity of physical examination. By passing the finger into the vagina and moving it from side to side over its posterior surface, the laceration is readily detected in the solution of continuity of the vaginal membrane. We then withdraw the finger and place it upon the anus, and passing it forwards detect the extent of the laceration. There is no call for ocular inspection of the perineum, to make out the diagnosis. I am aware that Dr. T. G. Comstock,* of St. Louis, recommends ocular examination of every case of confinement, to see if a laceration of the perineum exists. This may be done in a hospital, but I think would not be considered just the thing to do in private practice.

Dr. Emmet† claims that "a laceration of the perineum is sometimes accompanied by a general irritability, which can not be traced to any other cause, and is only relieved when the perineum is restored. I have known several instances in which the existence of scars in the perineum had so much

* U. S. Med. Investigator, July 1, 1880, p. 39.
† Emmet's Prin. and Prac. Gynæcology.

effect upon the nervous system as to entirely change the disposition of the woman, and yet they were not conscious of any local difficulty."

Now, it has not been our experience that such results follow slight lacerations or even scars of the perineum; still we give the student the suggestion from Dr. Emmet. The perineal body has not by its anatomy any peculiarity which would make a laceration of it any more likely to cause nervous symptoms, than would result from scars or lacerations anywhere else, and we do not think that experience shows that they do. We do not think that slight lacerations of the perineum interfere with involution of the uterus after confinement, as is claimed by some; neither do they materially aid in causing prolapsus uteri; but they do cause sterility by allowing of the discharge of the semen from the vagina before it is drawn up into the uterus. They are not desirable, as they interfere with sexual congress by preventing the contraction of the sphincter vaginæ, thereby tending to prevent the sexual orgasm in both sexes.

Treatment.

In recent slight cases the treatment consists in putting the parts in apposition, by placing the patient upon her side and tying the knees together to prevent their getting separated, and thereby cause the breaking loose of any feeble attachments which may form. The bowels should be constipated, in extensive lacerations, for eight or ten days, by giving *Opium* in *Mother Tr.* about ten drops every eight hours. Evacuate the bladder with the catheter twice a day, or leave a self-retaining catheter in the bladder. (See Plate XIII.) If the laceration is so extensive as to implicate the anus in the rent, the taking of three or four deep sutures, at once, is advisable. The interrupted suture may be used, or the quill suture is applicable, if preferred, as we will describe in the operation necessary in old cases of laceration.

When the laceration is small in extent, there is no need to constipate the bowels or use sutures. They may move aided by warm water enemæ, every two or three days. The limbs must be kept tied together, and gentle, bland nourishment, only, must be allowed. Tepid water, to which a little *Tr. Calendula* is added, may daily be very gently thrown into the vagina, always keeping the patient on her side. This is for the purpose of preventing the discharges from the uterus from getting into the laceration, and preventing union, which would be likely to result if the patient was upon her back.

Many cases even of extensive laceration will heal promptly if the foregoing directions are strictly followed; still I would place sutures in extensive lacerations, thereby preventing the possibility of a tedious and sometimes troublesome operation afterwards, as well as having the advantage of giving much comfort to the patient in the possession of health and avoiding the dread of an operation afterwards. Another advantage of prompt and efficient treatment consists in the saving of tissue which is necessarily lost in operating upon old lacerations, in order to freshen the edges of the tear and enable union to take place. Again, the inherent resources of nature which supply the plastic material to restore solutions of continuity, either in the bony, fleshy, or mucous tissues of the body, seem to be more active directly after the injury is received than at any subsequent period.

The case of chronic laceration of the perineum must be made to simulate the recent case, by freshening the edges of the rent in the vaginal, muscular, and cutaneous tissues, which have become covered by a sort of mucous membrane. We have made a drawing (Fig. 61), to represent the tissues which are lacerated and the position of the sutures to be taken where the laceration includes the recto-vaginal septum.

Operation.—First the patient should be in as good a condition as possible. If the general health is in bad condition, we are not likely to obtain union of the edges of the laceration.

The bowels should be freely moved previous to the operation. The lady should lie upon a conveniently high operating table, upon her back, being suitably clothed in woolen drawers and stockings, with the knees flexed upon the abdomen, and well separated by an assistant upon each side, who should also each hold a vaginal retractor to separate the lateral

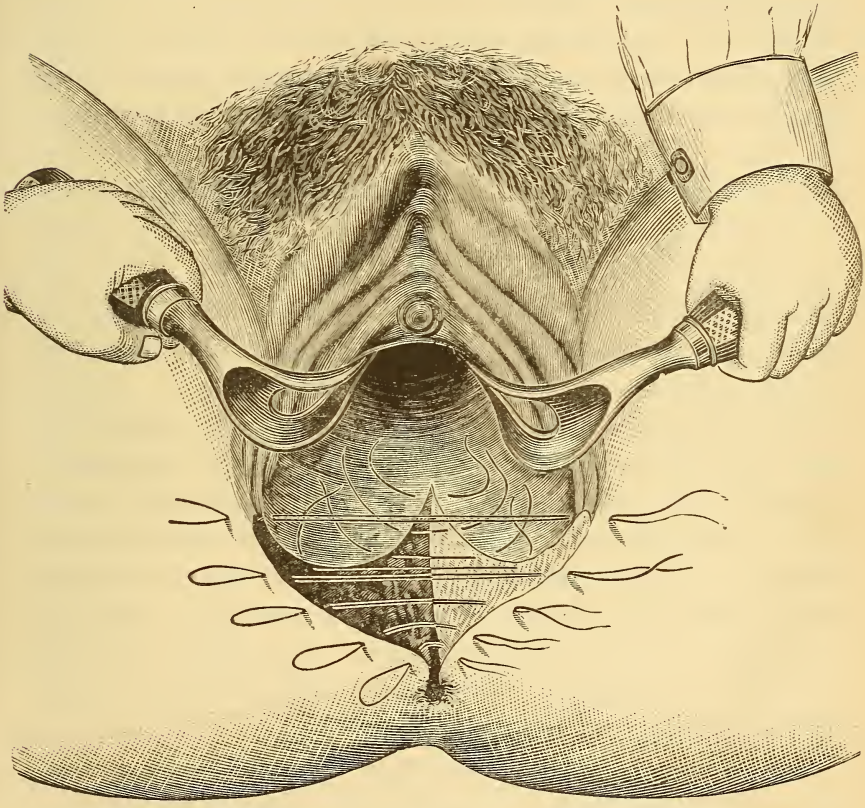


Fig. No. 61.—Laceration of the Perineum.

walls of the vagina from each other, and bring the entire laceration into view, after the patient has been given an anæsthetic.

We next proceed to denude the lacerated surfaces of the mucous membrane developed over them. If the laceration implicates the recto-vaginal septum, we make two operations,

the first to cause a healing and closing of the recto-vaginal septum, and afterwards of the rupture of the perineum; although instances might occur where it would be advisable to perform the whole operation at once.

In case we are to make two operations, we only denude the tissues which are to be approximated to form the recto-vaginal septum. Commence at the lowest portion of these tissues to be united, and seize the mucous membrane with a tenaculum, and incise its lower portion with scissors or small scalpel; then proceed to lift up and dissect off as rapidly as

Fig. No. 62.—Bozeman's Straight Scalpel.

possible, either with scissors or scalpel, all the surface we wish to bring in contact with the opposite side. (Both opposed surfaces must, of course, be denuded.)

We then insert the silver wire interrupted sutures, the same as in recto-vaginal fistula (after arresting any hemorrhage we may have caused), placing the uppermost suture first. Here my wire holder and twister will be found very convenient in fastening the sutures (see chapter on Instruments, Plate VI). Place as many sutures as are necessary to restore the recto-vaginal septum by placing them one-third of an inch apart, the number required varying according to the extent of the laceration.

In case we see fit to perform the whole operation at once, the entire surface, triangular in shape, as represented in the cut No. 61, must be freshened, and after placing the sutures to restore the recto-vaginal septum, as I have just described, we turn the patient upon her side, letting the knees come together, having the uppermost buttock lifted up by an assistant, to be out of the way. We may now take from three to five deep sutures in the perineum, placing the first just at the margin of the anus and the others at inter-

vals of a half inch anterior to it, using Peaslee's improved perineum needles, or strong curved surgeon's needles. We place these sutures deeply enough to include the vaginal membrane, having the last one anteriorly placed so far forward as to draw together some little of the tissue not freshened. This will be found in practice a useful suggestion, causing the restoration of a more complete and symmetrical fourchette than can otherwise be accomplished.

To insert a quill suture we must have a needle which has its eye about one-half inch back from the point, and is made somewhat semi-circular—it should be at least three inches in length, and fastened into a straight handle. (See Peaslee's improved perineum needles, Plate VI, chapter on Instruments.) The needle is threaded with silver wire, and inserted deeply, from side to side, carrying the point of the needle through the cutaneous surface of the opposite side to the one through which it is first inserted, far enough to enable us to pass a tenaculum through the loop of wire carried by the needle. We now make a little traction upon the tenaculum, so as to draw a little of the loop through the tissues, and holding it firmly, withdraw the needle by the side of the wire. We now insert a piece of No. 6 bougie through the loop of wire, and make slight traction upon the ends of the wires, sufficient to tighten the loop over the bougie. We now thread the needle with another piece of wire, or use another needle already threaded, and insert another suture in the same way, placing the first suture in the margin of the anus if it is implicated, or near it in case it is not torn, using a sufficient number of sutures to bring the laceration well together, placing them about one-half an inch apart and slipping the piece of bougie through each successive loop as it is inserted.

In placing these the patient may most conveniently lie upon her back, with the limbs well drawn up, as required for freshening the edges of the laceration, and, after the sutures

are placed, we turn the patient on her side, tighten up the ligatures so as to evenly approximate the lacerated surfaces, by taking the two wires of each suture and twisting them together over a piece of bougie like the one placed through the loops of the sutures upon the opposite side. (See Fig. No. 63.)

After these sutures are placed and tightened around the piece of bougie or quill, as was formerly used, superficial stitches between the deep ones may be taken just to include the cutaneous tissue, approximating it more evenly; and these may be removed in about four days. The ends of the sutures should be wrapped together in a piece of soft cloth, to prevent their irritating the thighs.

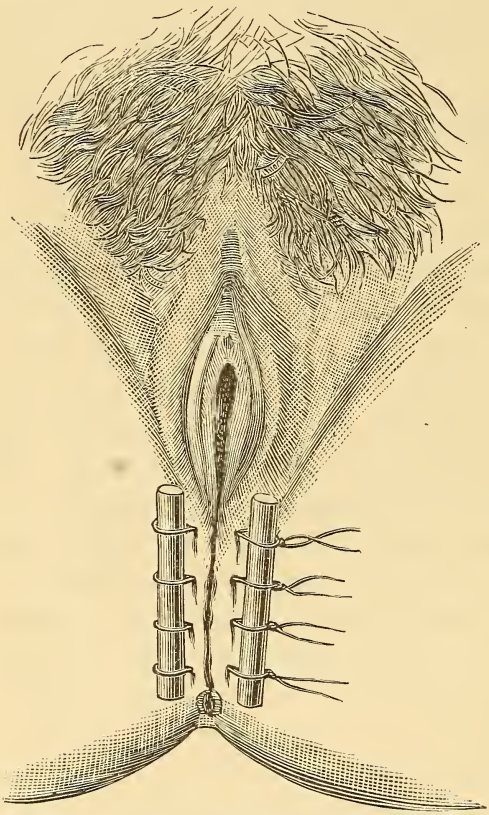


Fig. No. 63.—Quill Suture Adjusted in Cases of Lacerated Perineum.

After Treatment.—As soon as the operation is completed the patient may be removed to her bed, first tying the knees together. After the patient has recovered from the anæsthetic, ten drops of *Tr. Opii* may be given and repeated every eight or ten hours for two or three days, when the dose may be reduced to five drops if the bowels show no disposition to move. Beef tea, soup, milk, etc., should constitute the diet for ten days or two

weeks. The urine should be drawn off with a self-retaining catheter. No vaginal washes are required, nor should they be allowed. In the recent case, following confinement, we recommend them to wash away the discharges from the uterus which follow ordinary delivery; but in the old case, we have no need of them, and when they are needed in the recent case, they should be used while the patient is on her side inclining towards the face.

Time for the Operation.—The time to be selected for an operation for the restoration of the perineum is within a few days after the menstrual flow (if the menses have come on since confinement), in order to get the parts healed before the next period.

Cautions.—In placing the sutures do not draw them too tightly. There is more liability to make a mistake in this direction than in any other. When the sutures are drawn too tightly the normal circulation is arrested, and sloughing results, making not only a failure of the operation, but making any subsequent operation extremely difficult or impossible, owing to the loss of tissue from the sloughing.

Do not be induced to allow the patient to pass her urine for ten days without the use of the catheter, on account of the danger of its getting into the laceration and producing irritation. It is better that it be not allowed to dribble in the least down upon the freshened lacerated tissues.

If the anus or recto-vaginal septum is included in the laceration do not allow the bowels to move for at least eight days. When it is not involved they may move regularly. Reason and experience teach us that the passage of feces through the rectum and anus will tend very materially to disturb the healing process by breaking loose feeble attachments in the parts.

Do not make frequent examinations of the tissues to see how they are getting along. Perform the operation properly,

and then let the parts alone for about ten days. In the very young, robust patient, the sutures may be removed on the tenth or twelfth day; but with those not very strong the stitches better be allowed to remain fourteen or sixteen days. The bowels may, however, be moved on the eighth day, as a rule.

Dressings and Local Applications.—Regarding these, we say, none are required. Cases do better without than with them.

Removal of the Sutures.—The patient may lie upon her right side, with her thighs well flexed. We now pass the index finger of the left hand into the vagina, and feel for the highest suture. Having found it, we slip Cutler's suture forceps and cutter alongside the finger, and introduce the probe point of the long blade under it, and then open the blades a little, and pass the forceps in about a half inch further, taking care that the forceps are a little to the right of the twist of the suture. Now press the forceps together, and we sever the wire and hold the suture firmly; gently lift the forceps, and remove the suture. Remove the next below in the same manner, till all are removed.

We next proceed to cut the loops of the sutures in the perineum, if we have used the quill suture; and after removing the piece of bougie straighten out the wire which has been curved around it. We then make gentle traction upon the opposite ends of the sutures, sufficiently to allow us to remove the other piece of bougie. Now seize the twisted end of the sutures, one at a time, commencing with the one at the margin of the anus, and withdraw them, making counter pressure against the perineum at their point of insertion as each is withdrawn. We may now gently apply a pad of lint against the perineum, and support it with a T bandage. For a week longer the patient should keep the knees together religiously, and the T bandage and gentle compress may well be used for several weeks. The movements of the bowels

may be assisted by injections of warm water and soap for several weeks.

When shall we place Sutures in the Recent Laceration of the Perineum?—I would say as a rule, when the laceration is extensive, place silver wire sutures in the parts at once—*i. e.*, within a day or so. No freshening of the edges of the wound is then needed. Those lacerations which are slight may be expected to unite without using sutures, if we keep the limbs together, and use the precautions already mentioned. In the recent case the sutures need not remain more than eight or nine days.

Remedies.

Remedies are sometimes not needed at all; in some instances, however, symptoms arise which demand their use, and they should be given as homœopathically indicated. *Arnica*, *Hamamelis*, *Aconite*, *Bell.*, *Ars.*, *Nux*, or *Cal.* will be most frequently demanded. *Opium*, given to constipate the bowels during the first eight days after the operation, we recommend, not as a remedy in the doses suggested, but rather to induce an abnormal condition. We give it in *Tr.*, not to relieve pain or cure disease, but to restrain the normal peristaltic action of the bowels. If the patient has some idiosyncrasy regarding food, so that she knows of some food which will, in her case, cause an arrest of action of the bowels, let her have it instead of *Opium* by all means.

Aconite is indicated if inflammatory fever is manifested.

Arnica will ordinarily relieve any pain complained of in these cases.

Nux or **Ars.** may relieve nervous symptoms, according to their pathogenesis, as laid down in works upon materia medica.

CHAPTER LIV.

EXTRA-UTERINE GESTATION.

The development of a fœtus in the Fallopian tube or abdominal cavity is termed extra-uterine gestation or pregnancy. The lodgment and impregnation of an ovum in the tube is one of those freaks of nature about which we may theorize to our heart's content, and know as little afterwards as at first. The fact, however, is presented, that gestation does commence in the tube in some instances. That it never goes on to completion there is just as true. The distension of the tube by the fœtus generally causes a rupture of its coats about the third month. Barnes claims that this rupture of the tube is not necessarily fatal, and that an abdominal gestation is sometimes the result. Other authors are agreed, so far as I have noticed, that the rupture of the Fallopian tube is fatal. Few can say they have ever seen it otherwise.

Abdominal gestation may, however, become attached to any part of the peritonæal cavity, and go on to the full development of the child. The interest in this class of cases is found in the methods of nature and art adopted in its delivery, and also in the fact that it may remain in the abdomen for years, without producing any perceptible effect upon the mother. One case is recorded where the child remained in the abdomen fifty-six years.* Campbell† collected reports of eighty-five cases of abdominal gestations, varying in time from four to fifty years. (This does not look as if there was any very great necessity for operative interference.)

In some cases uterine pregnancy commences and goes on to completion, while abdominal pregnancy exists in the same woman.

* Barnes's "Diseases of Women," p. 322. † Ibid., p. 322.

Generally the death of the child takes place, it is said, at about the time of the completion of full term, if not then delivered. This I have some reason to doubt, from having seen one in Rush Medical College Museum, which had been removed, by abdominal section, three and one-half years from the time of conception, which had an appearance of much greater age than nine months. I could not learn the history of the case, however.

Interstitial, or intra-mural, gestation, as it is sometimes called, consists of the development of a fœtus at the uterine extremity of the Fallopian tube, which makes for itself a depression in the muscular fibers of the uterus around the tube. This form of abnormal gestation is about as fatal as the regular tubal variety, sometimes producing sudden death from rupture of the tube or the outer coats of the uterus, or being fatal from ulcerative action implicating the rectum or peritonæum. In these cases gestation sometimes goes on to full term; but more frequently the fœtus dies sooner, and may remain undecomposed for a time, when it disintegrates, and is discharged piecemeal by the uterus, vagina, or rectum, or through fistulous openings in the abdominal walls.

Diagnosis.

In all varieties of extra-uterine gestation the symptoms are more or less obscure for a few months after impregnation. The uterus, of course, enlarges little, or none at all; and still there is present, in most cases, partial or complete arrest of the catamenia, together with some nausea; enlargement of the papillæ around the nipples; some darkening of the skin in this locality; enlargement of the breasts, etc. In tubal and intra-mural pregnancy there is considerable pain and soreness in one iliac region. At times some enlargement may be felt here; at other times the tube may be felt enlarged by rectal explorations; still, similar symptoms sometimes arise from ovaritis or salpingitis, with amenorrhœa, and from other diseases

of the uterus and its appendages. In the case of abdominal gestation the symptoms are still more perplexing for a time, as for several months, and in some instances during the entire history of the case, menstruation goes on uninterruptedly. After three or four months, however, we may detect the pulsations of the fœtal heart, and this fact, taken in connection with the normal size of the uterus when unimpregnated, together with the absence of the severe pain experienced from intra-mural pregnancy, and from the patient's health being very little affected, will determine the diagnosis in favor of abdominal pregnancy.

Prognosis and Treatment.

But little can be done in these cases in the way of treatment. They are noted here for the general information of the student, and particularly to aid him in making a diagnosis of other ailments. The patient is likely to die in about three months after the commencement of tubal, and in from three to six months' duration of interstitial gestation. Kussmaul collected thirteen cases of tubal pregnancies, all of whom died before the sixth month. Rosenmüller* reports one case where the sac burst at five months from interstitial impregnation.

In abdominal gestation it is best to advise caution about becoming again pregnant, as this event (when the full term is accomplished in the uterus), and labor sets in, is very liable to destroy the patient by inducing a rupture of the sac in the abdomen, thereby causing a necessity for Cæsarian section, for the removal of the fœtus in the abdomen, which in the delicate condition of the patient is liable to prove fatal, as it is sure to do if the fœtus is left in the abdominal cavity after the amniotic sac has been ruptured.

Our hands are quite completely tied in these cases of abdominal gestations, where there is no special urgency, from

* Monatsschrift für Geburtskunde, 1862.

the experience, which I have mentioned, of the long life enjoyed by some women, though carrying an abdominal pregnancy. Symptoms may be met with appropriate, clearly indicated, homœopathic remedies; and exercising great care that the sac be not ruptured, is giving our patient the best chance for life.

In case the sac becomes inflamed for any reason, adhesions may form between it and the abdominal walls, and a sinus may form externally through these tissues. In this case it is proper to enlarge the opening, and extract the fœtus; inject the sac with a diluted *Solution of Iodine*, after ligating the funis near its placental attachment with catgut ligature, and removing the cord, leaving the placenta in the abdomen. Then compress the abdomen with bandages to bring the walls of the sac in contact, and promote union, leaving the external opening clear, to allow of the discharge of matter till the sac is healed. A similar procedure is advisable when the abscess in the sac points in the vagina. When the ulceration points into the uterus, in intra-mural gestation, we may enlarge the os uteri by the use of sponge tents till we can extract the fœtus in pieces through it, using the vulsellum forceps to extract such parts as we are able to reach. This treatment may sometimes avail, especially if there is a large laceration of the internal wall of the sac.

CHAPTER LV.

STRANGURY, DYSURIA, ISCHURIA, RETENTION OF URINE, SUPPRESSION OF URINE, ENURESIS, ETC.

Strangury, Dysuria, Ischuria, etc., are terms used to signify a complete or partial retention of urine in the bladder and painful evacuation of it; while suppression of urine indicates the failure of its secretion in the kidneys. These affections are found in the male as well as the female; but there are certain causes which operate only in the female to produce this condition, and it is these only which we purpose to discuss here.

Etiology.

Displacements of the uterus, which cause the organ to press the urethra tightly against the pubis, as in retro-version, ante-version with some degree of prolapse, ante-flexion, etc., cause painful micturition. These displacements not only cause strangury from pressure, but from the irritation of the urethra caused from the pressure. After confinement women are often troubled with retention, which in some instances results from irritation produced by the pressure of the child's head against the urethra for a long time, in its passage through the pelvis; and sometimes from a semi-paralyzed condition of the muscular fibers of the bladder, rendering it incapable of contraction. This is increased by over distension, liable to result from a neglect to have it evacuated in due time. Suppression of urine results from want of healthy action in the kidneys, or from obstruction in the ureters; but I can not discuss these conditions here.

Diagnosis.

The physician is sometimes misled by the patient's statement that she passes water very often. The distended condition of the bladder causes a desire to frequently urinate, as does also the pressure of the displaced uterus against the urethra; but the frequent passing of a few drops of urine, instead of being evidence that the bladder is empty, is very conclusive evidence that it is full or inflamed. Let the student be impressed with this point in diagnosis, as the patient is very liable to view the case as excessive rather than diminished flow of urine. These symptoms may be present when there is no large amount of urine in the bladder, from the constant irritation of the urethra, by a displaced uterus, or improper adjustment of a vaginal pessary; and hence the introduction of the catheter is demanded to clearly settle the diagnosis. The distended bladder may usually be felt above the pubis in the hypogastric region; but enlargement here may be due to ascites, tympanites, an enlarged uterus, uterine or ovarian tumors, etc.; hence this symptom is not conclusive of retention of urine in the bladder.

The sufferings of the patient from ischuria are sometimes very intense. The patient will make frequent and long protracted attempts to urinate, and strain with her utmost power, and still get no relief from the discharge of the few drops of urine she is able to force away. After confinement the pain is not so great, usually, owing to a degree of insensibility of the parts; still its retention must not be overlooked. If urine is not passed freely, the catheter should be used to make sure the bladder does not become over distended.

Prognosis.

Death is the prognosis if the patient gets no relief from retention. But with some skill in the diagnosis as well as in the treatment (so that there is not too great a loss of time)

we may hope to be successful in the treatment. In ischuria not dependent upon chronic cystitis we may hope to cure speedily. (See chapter on Cystitis for treatment of dysuria caused by this disease.)

Treatment.

The first point in treatment is to promptly evacuate the bladder with the catheter. Secondly, replace the uterus if it be displaced, or remove an offending vaginal pessary if one is there. *Cantharides* 6^x is usually the indicated remedy. Sometimes *Aconite, Bell., Can. ind., Cub.*, etc., are the indicated remedies.

There is very little use to depend upon remedies alone, when the cause is left to act. First remove the cause, and then remedies may cure the symptoms. Most cases are cured promptly with homœopathic remedies (after the cause has been removed). The cure may not be instantaneous, however; hence, for a few days it may be necessary to artificially evacuate the bladder with the catheter twice a day. Here *Nux vom.* 2^x or 3^x is the remedy most frequently indicated. If there has been great loss of blood during delivery or subsequent to it, *China* 3^x is indicated. I do not mean "give one dose and wait four weeks for it to act," but I mean to repeat it every three or four hours. *Canthar., Puls., Merc., Helleb., Dulc.*, or *Ars. alb.*, may sometimes be indicated. (See Materia Medica for special indications.)

Enuresis.

Enuresis, or want of power to restrain the flow of urine, is quite the opposite to *dysuria*, or strangury. In this complaint the urine passes involuntarily, not only during sleep, but while the patient is awake, in some cases. Here, as in *dysuria*, I intend simply to consider some causes of the complaint which are peculiar to women; the main ones of which are, pressure upon the bladder from the gravid uterus, when

approaching full term, and pressure from the enlarged uterus resulting from tumors of the organ or from tumors of the ovaries. From these causes the muscular fibers at the base of the bladder seem to have lost their tonicity, and hence results the inability to retain the urine. Want of room for the bladder to become distended, on account of these causes, is also an element in the case. Catarrh of the vulva, vagina, or urethra sometimes causes this condition in girls.

Treatment.

The indication is clear to remove the pressure from the bladder as much as possible. This is many times very successfully accomplished with the abdominal supporter. The reclining position, in some cases, relieves temporarily in some measure. Together with these measures the following remedies may be studied and prescribed according to their homœopathic indications: *Caust.*, *Rhus*, *Nux*, *Bell.*, *Sulph.*, *Sepia*, *Acon.*, *Bry.*, *Hyosc.*, *Canth.*, etc.

CHAPTER LVI.

GONORRHŒA IN WOMEN.

It seems, from the earliest accounts which have been recorded, that gonorrhœa has always existed among all nations. Moses speaks of it in the Bible* as "a running issue out of the flesh." Hippocrates, Herodotus, Celsus, and Cicero speak of the disease. It is treated of especially in works upon venereal diseases; but it seems to me advisable to mention it here, as the peace of families may at times depend upon the physician's correct understanding of it. Many physicians even to-day believe that gonorrhœa arises only from infection, which is a serious error, and liable to cause blame to rest upon the innocent.

Etiology.

Gonorrhœa may arise from infection; that is, from connection with a man affected with the disease, or from the application of the gonorrhœal matter to the mucous membrane of the labia or vagina with the finger or otherwise. It may also develop from a cold, causing inflammation in the vagina and urethra, which is followed by a discharge of matter which will produce the disease in the male. Excessive coitus, want of cleanliness, etc., may also develop the disease. Women may also disease a man, who are themselves free from any symptom of the disease, and who have never before had any sexual intercourse. This is asserted by Diday.† Fournier,‡ from his investigations coincides with these views. Out of three hundred and eighty-seven cases of gonorrhœa in men, he

*Leviticus, chapter XV.

† Bumstead on Venereal Diseases, page 50. ‡ Ibid.

found that it had been contracted from the following classes of women:

From women of the town	12
Clandestine prostitutes	44
Kept women, actresses, etc	138
Working girls	126
Domestics	41
Married women	26
	387

Excessive acidity of the vaginal secretions may cause the disease in a man, or at least produce a condition which can not be clearly diagnosed from the disease arising from contact with an undoubted case of purulent gonorrhœal matter in the woman of the town. Sexual intercourse during, just before, or just after the menstrual period, may disease the husband; and still we can not say the wife has gonorrhœa in these instances. We would be doing her gross injustice in the eyes of the people by such an assertion.

We must pay respect to the popular opinion, which is well settled, that gonorrhœa only arises from an impure connection. We are obliged, therefore, to diagnose the case as leucorrhœa, and explain that gonorrhœa may be contracted by the husband from connection with his wife while suffering from some varieties of leucorrhœa (or whites), or at the menstrual period, and in some instances from the acrid secretions of the uterus and vagina, when nothing abnormal can be discovered in the female genital organs by physical examination. Dr. Bumstead* fully agrees with these views, and says "he is convinced by extended observation that gonorrhœa originating in this mode is of very frequent occurrence."

Symptoms.

In the female the symptoms of gonorrhœa are less violent than in the male. Inflammation, heat, swelling, itching,

*Bumstead on "Venereal Diseases," p. 46.

burning, etc., in the labia, vagina and urethra, with painful micturition, and a discharge of purulent matter, are the symptoms produced by the disease when contracted from infection. When contracted from want of cleanliness, there is less discomfort in every way; but the discharge is sometimes large, at other times small in amount. The attack comes on gradually from this cause, while in the case arising from infection, the symptoms come on in about five days after exposure, and are of an active character, causing sometimes so much swelling of the labia as to make walking almost impossible. Swelling of the inguinal glands often accompanies this form of the disease. Abscess of these glands is liable to occur, but no constitutional blood taint is likely ever to be manifested.

In some cases the labia are mainly affected, in others the vagina, and in some the vagina and urethra, while in others the urethra, vagina, and labia are all simultaneously affected. The gonorrhœal discharge is thick, whitish, and slightly purulent, sometimes streaked with blood; but it has no characteristic qualities, either chemical or otherwise, excepting its infectious properties, which characterize it from leucorrhœa.

Treatment.

Where the urethra is mainly affected, causing much pain in this canal during micturition, *Can. ind.*, *Aconite*, *Cubebs*, *Canthar.*, *Merc.*, *Sepia*, or *Ars.* will usually give prompt relief, if used according to their homœopathic indications. Where the labia and vagina are affected, without the urethra being implicated, bathing the parts with a *Solution of Kali chlo.* every four hours, previously washing away the discharge with warm water and castile soap, is often all the treatment required. In some obstinate cases, the vagina and labia should be well and frequently coated with *Vaseline*, and the vagina should be swabbed out with *Zinci sulph.*, 10 grs. to the oz. Using a speculum, and putting the vaginal walls upon the stretch, we saturate a soft sponge with the wash,

and bathe the vaginal membrane freely, repeating this treatment every day for a week or so, when we will usually find the discharge has ceased, it having previously been kept up from the folds of vaginal membrane concealing surfaces which were affected, and still not reached until we distended the vagina with the speculum. The warm sitz bath is a useful adjuvant in the treatment of these cases.

Enlargement of the inguinal glands, called bubo, should be treated with warm compresses of cloths wrung out of warm water, or warm hop water, or we may add *Tr. of Arnica* to the water. Diluted *Spts. of Camph.* may be bathed over the swelling three times a day. If a few days' treatment of this kind fails to cause resolution, in connection with the internal use of the indicated remedy, we may poultice with ground flaxseed meal, or pulv. slippery elm, applying the poultices warm, and renewing them every six hours. If pus forms, the abscess should be lanced freely, the matter evacuated, and poultices continued. *Aconite, Sepia, Sulph., Merc., Iod., Ars.*, etc., are usually the indicated remedies. (See Materia Medica.)

Those cases about which we are in doubt as to the real nature of the disease, though manifesting symptoms giving a suspicion of gonorrhœa, we had better name to the patient and friends as leucorrhœa, or vaginitis (if you like), and then proceed to treat the case for gonorrhœa. Of course, where the history of the case and the violence of the symptoms clearly indicate it to be gonorrhœa, and there is no need of concealment, the physician should, of course, frankly state the nature of the disease. In either condition of affairs sexual congress should be strictly forbidden, and the patient should be warned to use care nor to get the matter carelessly upon other mucous surfaces, especially in the eye.

Gonorrhœa in Young Girls.—When quite young girls become diseased in this way (through the intent of some angry, low-lived servant girl, in order to spite the family for some

fancied indignity or insult), or from any other cause, the wash of *Kali chlo.* should be injected into the vagina with a small tubed syringe, and the external genitalia should be freely bathed with the same three times daily. *Vaseline* may also be applied to the mucous surfaces of the labia; and when the urethra is affected the same internal remedies should be used, as mentioned in connection with the treatment of gonorrhœa in women.

CHAPTER LVII.

SYPHILIS IN WOMEN.

Syphilis has only been known (so far as we can trace its history) about four hundred and eighty-five years. In the latter part of the fifteenth century, about the year 1495, it is described as being prevalent in France, Italy, and Germany, since which time the world has not ceased to suffer from its effects, until at the present time we have hard work to follow it in all its contaminating effects in the blood of nearly the entire race.

The immediate effects of primary syphilis are not so apparent now as in its past history, but its remote effects are around us on every hand. We do not intend to make more than a very few suggestions regarding syphilis, which appear to us to be of special interest to the student, leaving him to study the disease more in detail from special works on "Venereal Diseases."

Etiology.

Syphilis is contracted from infection and through hereditary descent. In its primary form it is communicable by means of copulation, or from the application of the syphilitic virus to any irritated mucous or cutaneous surface, where it develops as a chancre or chancroid.

A person having secondary syphilis, as it is called (mucous patches in the mouth, throat, etc.), may communicate the disease to another by kissing; and the disease develops in such person as a primary sore at the point where the virus entered the system. Tertiary symptoms are communicated only through the semen or ovum. Tertiary syphilis may develop from the semen in a child begotten of a father so affected,

and the mother may become affected with the disease in its tertiary form, in this manner, so far as the cutaneous symptoms are concerned.

I am sure I have seen the primary form developed from the virus rubbed off from the seat of a water-closet. I was formerly skeptical about this method of infection, but am now fully convinced such may be the fact. I will give one case in illustration.

A young man came to me with a well developed Hunterian chancre upon the dorsum of the penis, about three inches from the glans. He had previously been a patient of mine with other diseases, gonorrhœa among the number, and I am confident he would tell me the truth, as he was no ways backward about telling of his liasons. He declared that he had had no sexual intercourse for more than two months, that the sore commenced about a week before I saw him, and that a domestic where he lived, he had reason to believe, had the disease. He could not credit my diagnosis that it was a chancre, and he neglected treating himself properly till finally convinced by his inability to cure himself, when he again came to me. I then treated him as well as I could. He thought himself cured, and married. His first child was still-born, and covered with syphilitic eruptions. His wife now manifested the disease clearly in its tertiary form. (She had never had primary syphilis.)

This case convinced me that the disease in a primary form could be contracted without copulation. Since that time, which was some sixteen years ago, I have seen a number of cases, both in the male and female, which have proven more strongly this idea to be correct.

The virus will not, however, be readily absorbed by any surface which is perfectly intact. Some irritation of the mucous or cutaneous surfaces is necessary for its absorption, unless it be allowed to remain in contact with the skin or mucous membrane for a considerable length of time.

A syphilitic child may communicate the disease in its secondary form to a healthy wet nurse through nursing, and the diseased wet nurse may communicate the disease to the healthy child she may be employed to nourish.

Symptoms and Diagnosis.

The syphilitic symptoms are not so marked or violent as are those of gonorrhœa. The period of incubation for the chancroid sore is about eight to ten days, while the Hunterian chancre will not be found under about eighteen days after exposure.

The first symptom in the case is the appearance of a little pimple, slightly elevated, upon the inner surface of one labia, or at the juncture of the labia minora with the labia majora. This pimple slowly suppurates, and in about three days becomes an open sore, not, however, very painful. A hard margin and base is now observed, and the ulcer gradually enlarges. This is the Hunterian variety of chancre, and is usually single, though occasionally multiple. The chancroid is manifested in multiple sores, which spread and multiply rapidly, but do not ulcerate so deeply, and have a soft margin and base.

From these ulcerated surfaces a considerable quantity of matter is discharged. The sores are situated upon the internal surface of the labia, and sometimes within the vagina, and even upon the cervix uteri. We can not, therefore, decide that the patient has not syphilis because we find no chancres upon the internal surface of the labia or around the margin of the *os vaginam*. We must thoroughly examine the cervix uteri and vagina, by the aid of a speculum, in all suspected cases before giving a positive diagnosis.

Buboes, or enlargement of the inguinal glands, occur in connection with syphilis more frequently than in cases of gonorrhœa.

The above are considered ordinary primary symptoms.

The location of the chancre may, however, vary. The presence of a chancre in some place is necessary, however, to the diagnosis of a case of primary syphilis.

Secondary syphilis is the secondary manifestation of the disease, after the cure of, or in connection with, the primary ones. It is manifested by mucous patches, and eruptions on the skin, which are usually shiny and yellow. *Condylomata*, which consist of ear-like growths about the external genitalia, upon the mucous and cutaneous surfaces, etc., are another form of development of secondary syphilis.

Tertiary syphilis affects the osseous structure, especially the tibia and nasal bones, as well as causes various forms of eruptions on the cutaneous surface. (See works on Venereal Diseases.) Secondary symptoms are seldom manifested after the chancroid or soft chancre; but no patient is safe from them after having had the Hunterian variety.

Treatment.

The treatment of syphilis in women does not materially differ from the treatment of this disease in the male. We have mentioned the disease here mainly to call attention to its transmissibility through nursing and the spermatozoa in impregnation, and to suggest the necessity for thorough exploration in suspected cases that chancres be not overlooked. The treatment of primary syphilis has usually been more heroic than wise, both in the male and female.

Our treatment consists in first giving *Merc. sol.* 3^{x}, a 3 gr. powder, every three hours, and bathing the chancre with a weak solution of carbolic acid. After three days change the local application to *Vaseline* in case of chancroid, and give *Merc. sol.* and *Ars. alb.* in alternation every three hours, which is usually all the treatment required. In some instances I have used *Basilicon ointment*, instead of *Vaseline*, with the happiest effect.

In the case of the Hunterian chancre, after using the

treatment suggested for three or four days, it is best to make one application of fuming, *Acid nit.* with a glass rod, taking care that it touch the entire margin and base of the chancre sufficiently to cause a free slough of the indurated tissues; then dress with *Vaseline*. In case the single application of *Acid nit.* does not produce a slough, another application should be made. We prefer that *Merc.* be taken three days before we attempt to cause the slough, in order that the healing after the slough may be more prompt. After the slough has separated we have a simple sore to deal with, which will readily heal if the syphilitic poison has been neutralized by remedies as suggested.

In cases which manifest secondary symptoms, as the mucous patches in the mouth, condylomata, pustules of the skin, or the yellow shiny spots upon the skin. *Kali iod.*, *Merc. cor.*, *Ars.*, *Acid nit.*, *Thuja*, etc., are the remedies ordinarily indicated.

Tertiary symptoms are to be treated quite similarly to the secondary, *Thuja* being the most prominent remedy. *Silicia*, *Cal. carb.*, etc., I would add to the list of remedies in treating this form of syphilis.

Buboes in syphilis are to be treated the same as when occurring in cases of gonorrhœa, to which the student is referred in order to save repetition here.

The mucous patches and condylomata require no local treatment, save that which conduces to cleanliness. The remedies suggested for the secondary form of syphilis are adequate to cure them. Frequent bathing of them with tepid water and castile soap, when the patches are around the anus or vulva, and washing the mouth with a weak solution of salt or *Potass. chlo.*, is well enough, when the lips, cheeks, throat, or gums are affected.

CHAPTER LVIII.

DISEASES AND DIFFICULTIES OF PREGNANCY.

The development of the fœtus in the uterus produces in some women considerable disturbance of the general system, as well as particular affections of special organs and functions. The uterus, when affected with inflammation or disease, produces through the sympathetic nervous system many symptoms in remote parts of the body, which have been treated of under the head of "sympathetic affections."

The pregnant state, being one physiological in its character, it would seem, should produce no serious effects on the female system. We would naturally expect that this process might go on to completion of term without any interference with the general health, as we see among the animal creation. This is observed in some cases in the human female, notably among those savage or half-civilized races who live in the open air, perform much physical labor, and live upon the plainest diet, and in all things allow nature's inclinations and appetites full sway, almost like the beasts of the field. But as we rise in the scale of civilization we find that the women suffer more in the process of gestation and labor.

The want of physical exercise and pure air in sufficient quantity to develop and maintain the full normal amount of nerve and muscular strength tends to the production of ailments which, under circumstances of conformity to nature's laws, might be avoided. The tight lacing of the body of ladies in civilized and cultivated society, with the late hours spent in the heated and ill-ventilated ball-room, the insufficient clothing worn, and the nervous exhaustion consequent upon the rounds of dissipation engaged in by many, tend to

unfit woman for her high function in propagating the race; thus entailing upon her offspring debility and disease, and causing herself untold agony in the process, that should be as free from pain and disturbance as it is natural in itself.

But we have to take the world as it is, and the people likewise; and as it is probable that we will have more patients among the civilized races than the savage, we will probably have to contend with ailments innumerable accompanying the pregnant condition, for we can not expect to effect a reform in women's habits, dress, and diet in our natural lifetime, though it is to be hoped that the world will sometime pay more attention to the health of women than it does to-day, not by a return to barbarism and laying upon women grievous, severe physical labor, greater than she can well bear, and which is inconsistent with any mental growth, nor by set rules of living, bathing, and diet (for what is good for one may not be for another), but in the avoidance of excesses, by greater freedom from conventionalities, by plainer living, by conforming to the necessary laws of development and growth in girlhood, stopping the demand of society that young girls shall be expected to dress, act, and live like ladies, etc.

Various Symptoms.

One of the first symptoms of disturbance in the system during gestation is nausea — sometimes this is severe, and causes the rejection of nearly the entire ingesta. (See Vomiting in Pregnancy.)

Coincident with nausea we have the frequent desire to pass urine caused by the pressure of the enlarged womb irritating the urethra as it passes posterior to the pubis. Again we have constipation, resulting from the pressure of the uterus against the rectum. Sometimes diarrhea sets in, indicating an inflamed condition of the rectum, produced by the irritation of the enlarged uterus.

Along with these symptoms we have frequently headache,

toothache, and neuralgia in various parts of the body, with a fretful disposition, various abnormal cravings for indigestible substances, such as slate pencils, lime, pieces of wood, etc., etc., *ad infinitum*.

As time rolls on the uterus still increases in size. It presses upon the bowels, liver, stomach, etc., and we have *derangement of digestion, the sour stomach, gastralgia, heartburn, pruritus vulvæ*, and a miserable condition generally. Very little consideration is often exercised towards patients in this condition, the treatment shown them being calculated to irritate and anger them, and the effect is manifested in the bad temper of the child when born.

Albuminuria is a frequent condition of pregnancy, and was formerly supposed to result from disease of the kidney, the exact nature of which was in dispute; but it is now conceded that albumen is frequently in the urine of pregnant women in the later months of pregnancy, and is caused by the pressure of the gravid uterus upon the renal vessels, and that as soon as the pressure is removed by the delivery of the child the albumen will generally cease to be found in the urine.

Uræmia, caused from the same pressure, sometimes results, and it is mainly from this cause that we have convulsions in these cases, though, of course, the irritable condition of the general nervous system tends to produce convulsions, and may exist without the uræmia being present; still, as I said before, this I believe to be the most frequent cause of convulsions occurring in the pregnant woman.

Cramps in the thighs and calves of the legs, *varicose veins* of the limbs, *œdematous swelling* of the lower limbs, and sometimes general *anasarca, jaundice, hemorrhoids*, etc., are sometimes produced by the pressure of the enlarged womb upon the nerves and blood-vessels in the pelvis and abdomen. *Palpitation of the heart* from reflex nerve action, as well as *general fever*, sometimes result.

Displacements of the uterus are common in the early months of gestation, notably prolapse. This is owing to its increased size and weight causing it to settle down in the pelvis; and in our opinion the organ thus prolapsed produces, not only the symptoms heretofore noted as the result of pressure, but also, through the sympathetic nerve ganglia, causes the nausea on first rising in the morning. If this theory be correct we have a hint of the means of relief, which, so far as I have tried them, have been successful. I refer to restoring and maintaining the position of the uterus *in situ*.

Retro-version of the uterus sometimes takes place during the first two or three months of gestation, and is generally the result of jumping out of bed, or from a carriage, or in some way receiving a severe jolt. In this case the symptoms of misplacement are well marked, come on suddenly and violently, and unless soon relieved will result in the death of mother or child or both. Therefore, when called to a case where symptoms of displacement are manifest, with the assurance of pregnancy being present, no time should be lost in making a physical examination. If retro-version is present the introduction of the finger into the vagina will generally reveal the presence in the vagina of a large globular body, consisting of the body of the uterus; and by passing the finger high up on the anterior wall of the vagina we discover the os uteri. Replacement of the organ is, of course, at once indicated. This is the only efficient method of obtaining relief from the distress experienced in these cases where retro-version is present.

Syncope is often a resultant symptom of this condition. The student will also bear in mind that hemorrhage from the uterus may result in the pregnant woman from partial separation of the placental attachment, or in placenta previa, and be in readiness to use those prompt measures for its suppression which are often absolutely necessary to the saving

of life. I will only notice pruritus vulvæ and leucorrhœa as sometimes annoying the patient, resulting from a cervical inflammation, generally combined with some vaginitis, the leucorrhœa being dependent upon this irritation, and its acrid character causing the itching of the labia and vagina. This affection is often concealed from the physician by the patient through feelings of modesty, and she sometimes injures herself in her efforts to relieve the itching. Swelling and inflammation of the mammary glands in some instances have their predisposing cause in the pregnant state.

Treatment.

Although the recital of the many ailments of the pregnant state seems formidable we may hope to relieve many of them—though it is sometimes impossible to relieve them all; and we will have need of using constant vigilance, and in some instances continuous treatment, to obtain satisfactory relief (if relief may be considered satisfactory that requires constant application of treatment). The size of the uterus, which does so much to produce these derangements, can not, of course, be modified; neither can the supersensitive nervous system be restored in many cases.

It is quite common that the womb is morbidly sensitive during the early months of gestation. This may be due in part to the displaced condition of the organ, owing to its increase of size and weight, and in part to the irritability of the organ, consequent upon the growth of its substance, necessitated by nature, in order that it may contain and nourish the fœtus.

These considerations furnish to my mind reasons sufficient to cause me to believe that it is best to rely in part upon an attempt to relieve the uterus as much as possible from all pressure from the superincumbent weight of the abdominal organs, and in restoring and maintaining it in its normal position in the pelvis, instead of depending upon remedies alone

for the relief of the symptoms resulting from the condition of the organ in the earlier months of pregnancy.

This is obtained by rest in the reclining posture, with the occasional lifting up of the uterus by digital taxis. Lying with the hips a little elevated, with the limbs separated, is the best position. This favors the ingress of air into the vagina, and relieves the uterus from pressure from the weight of the bowels. When this position can be maintained for a period of some weeks we will have little trouble with the case as a rule; but as it is very unusual that a patient is willing to submit to this confinement, and as we have the injurious effect of want of exercise to contend with, if we allow it, we are driven to other expedients to accomplish the same ends.

I have found that the use of an elastic abdominal supporter accomplished the purpose in many cases (see Plate XII); some, however, requiring that the recumbent posture be taken for an hour or two after dinner, and applying the supporter before rising. We should be careful that it is of the right size, and is applied so as to lift the abdomen and not compress it. It is necessary that the band be a little tight in the lower part of the abdomen and loose above, so that the abdominal regions be supported by it. I have had made by Max Wocher & Son, of Cincinnati, a modification of the London supporter (see chapter on Instruments), which acts efficiently for this purpose, bringing the pressure just above the pubis, instead of two or three inches above, as it does with the old London supporter.

Some cases that are obstinate, where the patient is obliged to perform much labor while standing, may be benefited by the use of the soft gum elastic pessary, taking care to use a size that does not distend the walls of the vagina too much, using it for two or three days and then omitting it for a week or more; but unless the physician is in active gynæcological practice, and has the time and patience to properly adjust

and take care of the instrument, it is better to use simply the abdominal support; and *this* requires some little attention, as we may see that *compression* of the abdomen would do an injury, by forcing the uterus lower in the pelvis.

But I may say, once for all, that unless the physician has tact and skill enough to apply treatment in such a way as to obtain the desired result (when it is clearly attainable with proper skill and care), he had better pass all cases of gynæcology, as well as his other practice, over to some one else; as it is true, not only in these cases but in all others, the ignorant, careless use of sounds, speculums, pessaries, supporters, washes, tents, etc., as well as remedies, can only do an injury.

The remedies to be given in case of neuralgia, toothache, constipation, gastralgia, enuresis, palpitation, etc., are the same as though the cause was something else. In the albuminuric and uræmic condition it is probable *Merc. cor.* has more efficiency than any other remedy; but there are some cases that will not be relieved till delivery is accomplished. Some cases immediately recover on the event of confinement, while others, only recover after weeks of treatment; and some, I am sorry to say, never.

Dr. Goubeyre* states that of sixty-five pregnant women attacked with albuminuria, twenty-seven died, thirty-three were restored to health, while five remained albuminuric. He also states that out of one hundred and fifty-nine affected with albuminuria, ninety-four had convulsions.

This condition is more common in the primipara than in those who have borne children, as in the primipara the abdominal walls are more resisting, and consequently greater pressure is exerted on the renal vessels by the gravid uterus. Blatt discovered albumen in thirty out of ninety-nine cases of primipara, while in the multipara only eleven cases in one hundred and six were observed, as recorded by Bedford.

* Mémoires de l'Académie Imperiale de Médicine. Tome xx.

Convulsions occurring during gestation are usually due to the presence of uræmia, as has been stated. The treatment should be first directed to the relief of the spasm; and, secondly, to prevent a recurrence of the paroxysm. For the relief of the convulsion a few pellets of *Bell.* 3^x, may be put in the mouth, or a few drops of the dilution of *Bell.* 3^x, *Nux*, or *Verat. alb.* may be given, and the feet wrapped in warm wet cloths; or, if convenient, the full warm bath may be given or warmth to the spinal column by means of warm compresses may be used, and in case of failure to obtain prompt relief by these measures *Chloroform* or *Sulph. Ether* may be given by inhalation, till the convulsion ceases; after which we should ascertain if it be a retro-version that has produced the spasm, or if it be from albuminuria.

If albumen be found in the urine we will generally find relief from the use of *Merc. cor.* 3^x. In some severe and extreme cases, where convulsions continue in spite of every remedy, we may be obliged to produce a premature delivery of the child to save the mother. This procedure better be only done after consultation with two or more physicians. We generally have time in these cases to obtain counsel, and we should always insist upon having it in this class of cases before proceeding to bring on premature delivery. Of course, the child is viable at seven months, and we may hope to save its life in many instances; but from the fact that we may have not only a loss of the child, but the mother as well, we had better be fortified with advice from other physicians of high standing. We have in these cases not only the danger of an ordinary delivery, but the added danger from the use of the means to promote the delivery, and also the irritable and depressed condition of the nervous system, consequent upon the convulsions, as well as general derangement of the system from the causes which led to them. Fortunately spasms seldom occur previous to the viability of the child;

still its death may result from the convulsions, if they continue for a considerable time.

Vomiting may, in some rare instances, be so persistent as to endanger the mother's life, and a resort to abortion be advisable. (See Vomiting in Pregnancy.) Occasionally the slight nausea and occasional rejection of a meal may be a conservator of health, acting to prevent undue plethora, as after conception and the consequent suppression of menstruation, the system has in some instances, a tendency to undue plethora; hence *Nux* or *Ipecac* may be the remedies demanded to rectify the trouble. If we bear in mind that in pregnancy one lady may suffer from anæmia and another from hyperæmia, we may understand why the vomiting that is so injurious to one may conserve health in another.

We may also observe that the jaundice and sundry other disturbances and ailments are caused by the pressure of the uterus, and we will be led to rectify the trouble without a resort to medicine in some cases. The uterus rises the highest in the abdomen at about the completion of eight and one-half months of gestation, and owing to some cause the uterus may be deflected to the right side, and press so hard upon the liver as to interrupt its action, or more generally, probably upon the ductus communis choledochus, and prevent the discharge of the bile into the duodenum, hence giving rise to jaundice. By directing the patient to lie upon the left side and lean towards the left while sitting, seeing to it that the clothing is sufficiently loose, we may soon discover amelioration of the symptoms, and erelong their complete subsidence.

While speaking of looseness of clothing I will suggest that by attention to this matter in cases of renal difficulties, with or without dropsical swelling of the limbs, we may do much to relieve the trouble. Here we have annoyance to contend with, in the desire of women to look small and keep people

from knowing their condition. This desire is so strong in some women that they actually lace themselves to keep their size to suit them; hence I am often astonished that they have in these cases even the ability to live, and we are placed on our guard, in the management of these cases, by keeping in mind how the ailments of the pregnant state are occasioned.

In the treatment of the cases of nausea and vomiting occurring only at night, I would first ascertain if it were not due to retro-version (which I would rectify if it existed), and I would positively interdict sexual congress. By compliance with this direction our patient may expect relief. And while on this subject it may not be amiss to intimate that I am of opinion that if sexual connection was not in the least indulged in during pregnancy, we would have much less of suffering during this period.

The attempt to relieve these inveterate nauseas by giving a glass of cold water, warm tea or coffee, or a bite of cracker before rising is all well. *Acid cit.*, *Acid nit.*, *Puls.*, *Cal. carb.*, *Ars.*, etc., have been found often useful in the acidity of the stomach that is often so annoying. Failing by these remedies it may be best to use a chemical treatment, or food if you please, and feed the patient on a little *Soda* or *Magnesia*.

If *Nux*, *Bry.*, *Sulph.*, etc., do not relieve the constipation when given as indicated, enemæ of tepid soap water are to be used as adjuncts.

Canthar., *Bell.*, *Can. ind.*, give much relief to irritations in the urethra and bladder, given according to their homœopathic indications.

Diet.—Some attention to diet and exercise are important in the treatment of these ailments of the pregnant state. The diet should be nutritious, unstimulating, and digestible. The exercise should be moderate and in the open air. Riding in a carriage is better than confinement indoors; but walking exercise is much better if it can be taken.

Great gentleness should be shown the pregnant woman. We can not be too considerate of her feelings nor too indulgent in our ministrations for her comfort, for her own good and that of her offspring as well.

Pruritus and *leucorrhœa*, which are often combined in the same case, are troublesome, although only remotely injurious, and merit the attention of the physician, on account of the nervous exhaustion that the intolerable itching produces after a time. The leucorrhœa sometimes is of a bland character and gives little trouble, except that it is disagreeable to the patient in the soiling of the clothing; at other times it is acrid in character, denuding the mucous membrane of the vagina of its epithelium, causing intense smarting, burning pain. Sometimes apthous ulcers are formed on the mucous surface of the labia, and require applications of *Vaseline*. Frequent use of the vaginal injection of tepid water is of benefit in some cases. I have found the insertion into the vagina of a wad of cotton high up in the vagina, saturated with equal parts of *Glycerine* and *Hydrastis*, or *Glycerine* and *Tr. Aconite*, or *Calendula* (recollecting to attach a thread or string to the cotton to facilitate its removal, and changing the application every twelve hours), is a very useful treatment. *Aconite*, *Sepia*, *Bry.*, *Puls.*, and *Sulph.* are useful remedies in this class of cases.

There is a form of pruritus without the leucorrhœal discharge, where the sensation is that of burning, sometimes giving the sensation of the crawling of pediculi. This variety is mostly confined to the cutaneous surface of the labia and the mucous membrane covering the clitoris. Both varieties of pruritus may result from disease of the uterus, as well as pregnancy; but I think we have them more frequently in pregnancy than otherwise. This variety last mentioned is evidently abnormal nerve sensation or sensibility, which is peculiar to some women, or to women at particular times. *Camph.*, *Apis*, or *Ars.*, are probably the best

remedies in these cases. If abnormal sensitiveness of the os uteri be observed, one or two applications of *Bell. ointment* may be made to it, and the labia may be bathed three or four times a day with a wash of one part of *Glycerine* to three of water. Attention must also be given to the general health and diet of the patient.

In all these ailments we do well to see to it that our patient does not get excessively fatigued, but takes frequent rest in the horizontal position during the day.

In cases of inflammation of the breast, where there is a secretion of milk, it must be artificially drawn two or three times a day in some cases; in others, once a day is sufficient. *Bell.* is the chief internal remedy indicated, and it may also be applied locally to the inflamed part.

CHAPTER LIX.

VOMITING IN PREGNANCY.

Vomiting in pregnancy is sometimes exceedingly annoying to the patient, her friends, and her physician. Ordinarily it occurs only upon rising in the morning, or after breakfast; but in some instances the nausea comes on worse in the after part of the day, and sometimes is continuous, apparently causing the rejection of all the food and drink taken into the stomach. In these extreme cases the gravity of the symptoms becomes alarming, and the life of both mother and child is endangered.

Authors upon diseases of women have either ignored this subject, or treated it as of little moment. Works upon obstetrics are almost as silent, and college professors also have usually slighted the subject. Hence, the young practitioners are left without sufficient guidance in this complaint, most of them having from their readings been impressed with the idea that vomiting was rather physiological than pathological.

These young men find upon engaging in active practice that cases of vomiting in pregnancy come to them for relief. The question arises, In what can relief be found? They then naturally ask themselves, Why this manifestation? What are the conditions producing it? Why do some escape and others suffer? They naturally consult books, and find either no mention made of the complaint or only an unsatisfactory allusion.

These considerations have prompted me to include this subject in this work, although it more properly belongs to the department of obstetrics.

Etiology.

Just here we venture upon contested ground. Although the contest has not been sharp or decisive, it has torn up the soil enough to perhaps enable us to get at some light upon the subject. As gestation is established the uterus enlarges, and, of course, becomes heavier than in its unimpregnated state. (And it is well known that it settles down in the pelvis during the first three months of pregnancy below its normal position.) This may account for the nausea produced by rising from the recumbent position while the stomach is empty through the sympathetic nervous irritation caused by the downward displacement just mentioned. In some cases this nervous irritation is caused by the enlargement of the womb alone; in some cases, due to a sub-acute inflammation of the organ; sometimes to irritation of the uterus from copulation after pregnancy has occurred. The general nervous irritability of the patient may predispose to this condition. It is, however, none the less a pathological or diseased condition which manifests this symptom.

We think it time that the profession was outspoken on this point. It may cast reflections upon the method adopted by fashionable society, and even by civilized nations, in the rearing of children, and apply with special force upon those of the present generation; but let it fall where it may, it is time the people understood that they can not ignore the laws of their physical being, and still have health and an easy procreation, devoid of annoyance and danger, like the animal creation. We must remember that we have an animal frame, requiring, not only healthy food, but pure air and plenty of physical exercise. Our daughters are reared to-day with a scant supply of all these, and have inherited none too good a constitution from their parents. Let us, then, place the blame where it belongs, and not by intimation censure our Creator for making women so as to suffer these things.

Diagnosis.

In diagnosis the absence of menstruation in the married woman, previously regular, together with other symptoms, will indicate that the nausea is due to pregnancy, or rather the condition produced by pregnancy. The history of the case should show an absence of gastric disturbance previous to the arrest of menstruation. In these cases the smell of food is often as nauseating as its taste. A somewhat similar train of symptoms may arise from uterine disease or displacement, independently of pregnancy; hence, we must be somewhat careful in noting the history of the case, as well as all the symptoms present indicating pregnancy, in order to make a correct diagnosis. Most cases are clear, but 't is well to be on our guard against error in the exceptional ones which sometimes come before us.

Treatment.

The suggestions which I have made regarding the etiology suggest the treatment. In some cases we should proceed as though the patient was suffering from displacement of the uterus. Rest in the recumbent posture is one means of allaying the irritation. Sometimes the abdominal supporter, by taking off the weight of the intestines from the uterus, and relaxing the strain upon the broad ligaments, relieves the symptoms. Conjoined with these measures the use of the inflatable pessary in the vagina by lifting up the uterus relieves the trouble. Bathing the abdomen and spine with *Chloroform* wash is often of service. The tepid sitz bath, used daily for fifteen minutes, is of some service in those cases where there is much tenderness of the uterus.

Internal Remedies.

Oxalate of Cerium, *Puls.*, *Ars.*, *Ipecac*, *Cal. carb.*, *Acon.*, *Nux*, *Sepia*, etc., sometimes give some relief, if indicated by

the symptoms other than the vomiting, as well as this one in particular. *Bell.*, *Hyos.*, *Ignat.*, *Gelsem.*, *Secale cor.*, or *Arnica* are sometimes of benefit when there are nervous symptoms which strongly indicate their use homœopathically. We should be sure in obstinate cases that there is not retro-version or retro-flexion of the uterus causing the nausea. This can be best detected, if the case be one of retro-flexion in the gravid uterus, by means of rectal examination. The uterine sound must not be introduced for the purpose of diagnosis or treatment in the suspected case of pregnancy, as being too likely to produce an abortion. Taking a little food or a drink of tea or coffee before rising has been found, by some, a relief to the nausea, though not curative.

The remedies and treatment I have suggested will, in the majority of cases, give relief, and in many a complete cure is effected with them. There are however, I regret to say, some few cases where all these means fail, and the serious question arises, What is to be done? Sometimes the vomiting is so constant that the patient is in imminent danger of dissolution from actual starvation. In these extreme cases rectal injections of beef tea may be tried. The patient continuing to go down in spite of these injections the question arises, Shall we resort to abortion to save the patient's life? Obviously, before this is done, a consultation should be held (as in case of convulsions) with at least two medical gentlemen of good standing, and their concurrence in the necessity of the procedure should be obtained before making any attempts to evacuate the uterus.

Dr. W. W. Potter,* of New York, reports a case, with comments upon the arguments *pro* and *con* regarding the operation, which I will quote. He says:

"There is, perhaps, no malady which puts to a severer test the resources of the obstetric practitioner than *extreme* cases of nausea and vomiting dependent, etiologically speak-

* Amer. Jour. of Obstet., January, 1880, page 85.

ing, upon the gravid uterus. It is, therefore, fortunate that we only now and then meet with a case of that sort, demanding the extremest expedient for its relief known to the obstetric art; namely, the artificial induction of abortion. Since but very few of these extreme cases can fall within the observation of any one physician, I shall assume that a detailed history of one which lately came under my ministrations will not be devoid of interest.

"*March* 26, 1879, was called seventeen miles to see Mrs. J. L. T., aged twenty-three years, and who had been married a little more than five months. I found her about ten weeks advanced in pregnancy, and also suffering from chronic bronchial catarrh. She was greatly emaciated; vomited all food, and even water was at once rejected, the nausea being persistent and constant. Pulse 80, and feeble; temperature 99° F. She also complained of neuralgic pains in the right chest wall. Examination, per vaginam, revealed a gravid uterus, and the speculum further disclosed chronic endocervicitis with granular erosion of the os and lower segment of the uterus, accompanied by the characteristic discharge incident to the pathological condition described.

"Clearing away the thick, tenacious mucus clinging to the parts, I applied *Tr.* of *Iodine* to the os and cervical canal, after which a pledget of cotton wool, which held about one drachm of the following mixture, namely:

Chloral hydratis	ʒ ij.
Acidi carbolici	gr. x.
Fl. ext. opii	.....
Glycerinæ	aa ʒ ij. M.

was packed snugly around the os, and held in place by other dry cotton pledgets.

"I advised that the stomach be entirely abandoned for the purposes of nutrition, and that rectal alimentation be substituted; and further suggested the use of a *Kreosote* mixture per orem, to be used cautiously, and to be discontinued

if it should not be well retained. It is proper to add that this was intended to be a consultation visit, but the physician who had already attended Mrs. T. for four or five weeks did not arrive until just as I was taking my leave, when I submitted my plans to him, and secured his cordial assent.

"*April 2d.*—Saw Mrs. T. again to-day, one week after my first visit; found her suffering considerably from neuralgic pains in the right thoracic wall; stomach less irritable, though all food given per orem is still rejected, this having occasionally been tried, notwithstanding my injunctions to the contrary. I renewed the applications to the os and cervix uteri in the same manner as on the former occasion; gave one-sixth grain of *Morphia* hypodermically for the relief of the thoracic pain; advised lime water and milk in small doses, and continued the *Kreosote* mixture, as the patient fancied it had been of some benefit.

"The emaciation had increased since my last visit, and anemia was now extreme. The nutritive enemata, consisting of beef essence, milk, brandy, and laudanum, had been tolerably well retained, and I therefore advised their continuance as a chief dependence for nutrition.

"*April 13th.*—Was summoned by telegraph late at evening (Sunday), to visit Mrs. T.; arrived at ten o'clock P. M., and found Dr. Barross, of Attica, in consultation with Dr. Young, the attending physician. Her stomach was now rejecting every thing; nausea and retching constant; emaciation and anemia progressing. She was sleepless; temperature 100° F.; pulse 110 and feeble, with the vitality greatly depressed. Her mother stated that the patient had had three convulsions during the day, which so alarmed the friends that they had associated Dr. Barross (who resided eleven miles nearer the patient than myself) with Dr. Young, pending my arrival.

"I presented to these gentlemen the propriety of the artificial induction of abortion in the case; but they were

both minded otherwise, fearing fatality as a result, and which now seemed inevitable to them under any plan. I, therefore, advised *Chloral hydrate* and the *Potassium bromide* (thirty grains of each) in emulsion with yolk of egg and milk per rectum, to be administered at once. This was done about eleven o'clock P. M., and it brought about a comfortable night's sleep.

"*April* 14*th*.—Next morning our patient seemed in a more encouraging condition; her pulse was slightly stronger, and there had been neither nausea nor retching since midnight. Advised continuance of the *Chloral* and the *Potassium salt* per rectum, from two to four times a day; also beef essence, milk, and brandy in the same manner. Per orem, small quantities of iced lime water and milk, if retained.

"*April* 18*th*.—Was again summoned by telegraph; found patient suffering from repeated nausea and vomiting; greatly prostrated; pulse 116; temperature 100.05° F.; emaciation increasing, and bronchial symptoms more aggravated.

"The rectum had now become so irritated that medication and alimentation by that method had to be suspended; therefore, I now determined that the induction of abortion should be no longer delayed, particularly as it seemed to offer the only chance of saving life, even though, apparently, never so slight a one. Accordingly, with the concurrence of the attending physician, I dilated the os with the finger, the patient being in the Sims' position, and passed into the uterus a piece of carbolized catgut about twelve inches long, doubled upon itself, retaining it by pledgets of raw cotton, neatly and snugly packed around the os. I administered morphia hypodermically, and left the patient under the close surveillance of Dr. Young.

"*April* 24*th*.—Visited the patient again by appointment, when I learned that at five o'clock P.M., on the 22d, a three and one-half months fœtus (it was saved for my inspection) had been thrown off, and that the placenta followed soon

after, all without hemorrhage or anything worthy the name. All her symptoms now seemed better; she was cheerful, and took nourishment per orem, cautiously administered, brandy and cream, etc.; temperature 99.05° F.; pulse 88, and no nausea nor vomiting. Gave her iced champagne, which she enjoyed.

April 27th.—Saw Mrs. T. again by appointment; there had been no return of nausea; bronchial symptoms much improved; strength slowly increasing, and food is taken with relish. Continued nourishment per orem, with champagne and Mensman's beef tonic.

"*Sept. 6th.*—Mrs. T. visited me. She was at this time quite strong and well, and about to undertake housekeeping.

"At the risk of being wearisome, I have been somewhat diffuse in the relation of this case, while at the same time I have abridged many of its details. It is proper, however, that I make further mention of one or two special features of the case.

"I. Let it be noticed that there was inter-current catarrhal bronchitis, complicating the excessive nausea and vomiting of pregnancy, which in no small degree embarrassed its therapeutical management, since the remedies necessary to control the bronchial symptoms could not be retained by the stomach. The bronchial catarrh had, up to the time of my first visit, been the sole source of anxiety on the part of the friends of the patient, and thus far had entirely absorbed the offices of her physician. Neither had yet suspected pregnancy, believing that the suspension of the menstrual function was due to the general debility and anemia growing out of the bronchial disease. Now that the uterus was pronounced gravid, an additional and greater source of danger was discovered, and anxiety on all hands became extreme.

"II. The second point of special interest to which I would refer, before dismissing the case altogether, is the extensive superficial ulceration of the lower segment of the

uterus, attended, as it was, by the profuse egg-like discharge which is so often found present in similar conditions. I fancied that I had discovered in this the true source of all the difficulty, and that I had but to remove it, when the nausea and vomiting would depart. In her very feeble state, however, I found it exceedingly difficult to make the necessary local applications; and becoming convinced, also, that the ulceration was no longer tractable to the use of mere topical remedies, I determined to abandon them altogether; moreover, rectal alimentation and medication having failed to arrest the progress of the malady, the direful alternative of putting an end to the pregnancy was forced upon me.

"I will now offer some remarks germane to the whole subject of excessive vomiting and inanition of pregnancy, the case reported having furnished an appropriate text therefor.

"First, let us briefly examine the subject with reference to the etiology of this vomiting; and, be it understood that we are speaking generally, dealing only with cases where this symptom of the gravid state is so severe and persistent as to threaten the life of the patient, since, in the main, the ordinary vomiting in pregnancy may be regarded as a useful and not an abnormal symptom.

"A few obstetricians strongly advocate the theory that some displacement of the gravid uterus is, in almost every instance a cause of vomiting, and notably among their number we find the name of Dr. Grailly Hewitt; others refer the condition to granular inflammation of the os, cervix uteri, cervical canal, or os internum; others, again, believe that the symptom is due to the stretching of the uterine fibres; while still others regard it as a reflex phenomenon due to the gravid state, a condition which has been so happily termed by Dr. Geo. J. Engelmann, of St. Louis, as a hystero-neurosis of pregnancy. Let me quote his own words. 'I will,' remarks Dr. E., 'merely recall the various gastric symp-

toms which occasionally accompany pregnancy; . . . the uterus after conception, as previous to the menstrual flow, is in a more active sensitive condition; it is congested and enlarged, and the nausea, the vomiting, and epigastric distension occasionally found during pregnancy, may also be classed among the hystero-neuroses, as we know that in some cases these symptoms may be relieved by dilatation of the cervical canal, and always by the discharge of the ovum, whether at term or sooner, thus proving their dependence upon the uterine condition.'*

"Prof. Samuel C. Busey, M. D., of Washington, D. C., in a paper lately published,† 'On the Potassium Bromide and Suspension of the Action of the Stomach in the Uncontrollable Vomiting of Pregnancy,' has interpolated some remarks upon the etiology of the disease, which are so germane to the proposition which I have just advanced, and, withal, so concisely stated, that I shall take the liberty of quoting them here. 'The nausea and vomiting of pregnancy,' says Dr. Busey, 'are undoubtedly, in a vast majority of cases, reflex phenomena, but it is not improbable that occasional exceptions occur, and in a large proportion of, if not in all, the cases when these stomachic disturbances become serious, and for a time uncontrollable, catarrhal conditions of the gastric mucous membrane are superadded. The clinical history of cases of acute gastric catarrh, and of cases of protracted and uncontrollable vomiting of pregnancy, are very analogous. Anorexia or a vitiated appetite, nausea, vomiting, thirst, epigastric oppression or pain, a saburral condition of the tongue, eructations of a glairy mucus, and despondency, are common to both affections. In fact, there is not a symptom, except such as may relate to the reproductive organs, belonging to either which may not be present in the other. The most frequent cause of catarrh of the stomach is indigestion,

*Trans. Am. Gynæcological Society, Vol. II, p. 518.

† Am. Jour. Med. Sciences, January, 1879, p. 112.

due either to an indiscreet diet or to derangement of the digestive process. Impoverishment of the blood disqualifies the gastric fluids, and the inanition of pregnancy, so frequently the precursor of the more serious stomachic disturbances, may thus become a potential factor in their causation.'

"I have by no means exhausted the list of causes which have been enumerated by different writers upon this subject, but enough have been mentioned to illustrate the fact that, as they are various and variable, so, too, will the treatment recommended vary in method and application.

"As we are dealing only with extreme cases, where life is placed in great jeopardy from the prolonged and constant nausea and inanition of pregnancy, so, in the consideration of treatment, shall we, likewise, confine our remarks to the extreme measures requisite for its relief.

"These will be discussed under three general heads, viz.:

"I. Stomachal rest.

"II. Rectal alimentation and medication.

"III. The artificial induction of abortion.

"I. The first indication of treatment, then, in these extreme cases, speaking generally, is absolute and complete rest for the stomach; not only must all food be positively inhibited, but so also must all drinks, in large or small quantities, be excluded per orem. So necessary to success is stomachal rest, I am convinced, after considerable observation, that there must be a positive prohibition of all alimentation by the stomach; and that under no circumstances must we allow the cravings of the patient or the entreaties of her friends to persuade us to relax this stern and apparently cruel mandate. To relieve thirst, dryness of the mouth, and the parched condition of the lips small chips of ice may be allowed per orem, *but nothing else.*

"'Cases occur,' remarks Dr. Busey,* 'in which the stom-

"*Op. cit., pp. 114, 115."

ach will not tolerate any thing, either liquid or solid. Occasionally, when some simple article of food is for a time retained, it simply accumulates, and is finally expelled undigested. Digestion seems to be suspended, or so disturbed that stomachal alimentation is impossible.'

"This is undoubtedly the experience of every one who has had much to do with this malady. Why, then, should we torture the already disturbed, irritated, and rebellious stomach by the introduction of even the blandest aliments? Better far to wait until rest and time have sufficiently repaired these disturbances to warrant the gradual resumption of stomachal alimentation, and to inspire the belief that the assimilative process may also be restored.

"By the same inexorable rule that we prohibit the ingestion of food would we also deny the introduction of medicines per orem, for the self-same reasons which govern in the one case apply with equally cogent force in the other.

"II. Of rectal alimentation and medication.

"The same dire necessity which compels us to abandon the stomach for purposes of nutrition and medication forces us to adopt the rectum for like uses; and fortunate it is that nature has so wisely provided such a valuable and efficient substitute, enabling us thereby to sustain life for even a lengthened period, should such a necessity arise.

"It is a well known fact that in many stomachic, esophageal, and pharyngeal disorders rectal alimentation has been employed with more or less success, oftentimes, indeed, it being the only method of sustaining nutrition for weeks, months, and even years. I shall not attempt to enter into a historical review, nor to discuss in extenso the rationale of the rectal method of alimentation, but shall simply submit a few remarks in regard to its applicability and usefulness in the nausea and inanition of pregnancy.

"The most valuable recent contribution to the literature of this subject is a paper by Dr. Henry F. Campbell, of

Augusta, Ga., submitted to the American Gynæcological Society at its annual meeting in 1878,* from which many of the thoughts here suggested have been formulated.

"If it is important—nay, absolutely necessary—that the stomach shall have rest in 'gravid nausea,' it is equally important that nutritive elements shall be furnished in some artificial manner in sufficient quantities to maintain the vital standard to such a degree that there shall at least be no loss by the prohibition of stomachal alimentation. It has been demonstrated over and over again that this was possible; but just how the rectal food was prepared for, and finally introduced into, the blood has been a matter of controversy, conjecture, and doubt, until Dr. Campbell 'cut the Gordian knot' by his ingenious and, to my mind, conclusive explanation of the *modus operandi* by the method which he has so simply and aptly termed 'intestinal inhaustion.'†

"If the rectum or colon were alone depended upon to absorb or convey to the blood the nutritive enemata very little or no good could come from their use, since both of those organs are devoid of the digestive juices so necessary to the preparation of all aliments for their absorption into and admixture with the blood. It is highly probable, however, that when food is properly placed in the rectum there is a reversion of the ordinary and normal peristaltic action of the intestinal tube, which carries it upward until the small intestine is reached, where those digestive juices are found which prepare the food for chylous absorption in the same manner as though the aliments came by way of the stomach instead of the rectum. Nay, more; is it not likely that food which finally reaches the blood up through a healthy avenue is better fitted for the nutrition of the body than when sent downwards through a stomach irritated and disturbed, with its secretions chemically at fault, and its functions rendered morbid by the hystero-neuroses of pregnancy?

"* Gynæcological Trans., Vol. III, p. 268." "† Op. cit., p. 282."

"Let us interrogate Dr. Campbell in this connection with reference to the manner in which rectal alimentation is made to serve the purposes of nutrition in these cases. 'I have already,' says Dr. Campbell, 'defined the method by which I account for the digestion, absorption, and assimilation of food when placed in the rectum. It is this, differing from all others with which I am acquainted, that digestion in either rectum or colon is not at all contemplated—neither by direct absorption on the part of the walls or vessels of these cavities; nor by the means of artificial digestive principles added to the food after the manner of Leube; nor by the glands of the large intestine vicariously secreting the digestive fluids of the small intestine; nor, lastly, by the alimentary mass in the large intestine exciting the secretions of the stomach and small intestine, and then attracting, or in some way acquiring, them, in order that rectal digestion may take place.

"'My proposition is distinctly the reverse of this last, and asserts that instead of the digestive principles descending to the food to digest it the food ascends to these fluids in the small intestine, and that it is there digested and prepared for absorption by the proper organs in precisely the same manner as after buccal ingestion.'*

"I am at this moment feeding four patients per rectum for various maladies (one being for gravid nausea and inanition); and I should be glad to introduce notes of these cases in this paper, but I forbear lest I wax wearisome with many details. It is sufficient to say that they all tolerate the method well, and are improving under it. I have interrogated each patient carefully, after having instructed them to make particular observation as to recto-staltic action, and they all assert that they can 'feel the food going upwards into the intestines' a little time after its introduction.

"Dr. Nathan Bozeman, of New York, in a recent, most

"*Op. cit., p. 285."

valuable contribution to the literature of ovariotomy,* has demonstrated the superiority of both rectal medication and alimentation, even before as well as after the operation.

"Dr. M'Clintock read a paper on the subject before the Obstetrical Society of Dublin, March 12th, 1873,† in which he gave the report of a case which was reduced to the very last degree of prostration and weakness when the abortion was provoked, insomuch that the preservation of her life seemed scarcely possible; nevertheless, she made a good recovery and again became pregnant.

"Dr. M'C. also gives in his paper a table of thirty-six cases where abortion had been artificially produced to rescue the patients from the fatal effects of their persistent and excessive vomiting. In twenty-seven of these cases the nausea and vomiting was completely arrested and the patients perfectly recovered; in the remaining nine cases, while the vomiting was stopped, ultimate recovery did not take place. The result in these nine instances the author thinks due, in part, to the fact that the operation had been too long delayed; and in part to the fact that concurrent disease in some form had complicated the cases so as to put recovery out of the question under any plan.

"Dr. M'Clintock also cited fifty cases, from various authentic sources, where death had actually taken place in consequence of the persistence and uncontrollable severity of the pregnant sickness.

"It now and then happens in those cases, that nature herself comes to her own relief and turns out the offending uterine contents, thus clearly indicating the correctness of this line of practice in exceptional instances. This occurred, indeed, in the very case which Dr. Campbell makes the basis of the valuable paper to which I have frequently made reference in this rambling communication.

"* See New York Med. Record, July and August, 1879."
"† Irish Hospital Gazette, May 1, 1873."

"I will conclude by formulating some of the principles which we seek to enforce:

"I. That in extreme cases of gravid nausea the stomach often becomes so disturbed in its functions as to render the digestion of food harmful, nay, even impossible. Hence arises a degree of exhaustion and inanition which may result in death.

"II. That stomachal rest, which oftentimes must be absolute as far as a positive prohibition of all buccal ingestion can make it so, must be strictly enjoined; moreover, this may be, and often is, a condition precedent to therapeutical success in the management of cases where life is threatened.

"III. That rectal feeding and medication become alike important factors in securing the necessary rest for the stomach, and indispensable ones in maintaining and improving the nutrition of the body.

"IV. That the maintenance of nutrition by means of rectal feeding is accomplished by a 'reversal of normal peristaltic action' in the intestinal tube—the 'retrostalsis' or 'intestinal inhaustion' of Campbell; and, further, that to Dr. Campbell belongs the credit of first bringing to the notice of the profession this newly-discovered function of the alimentary canal, whereby the true rationale of rectal alimentation seems fully explained.

"V. That by 'the careful and systematic' employment of feeding and medication through the rectum, the necessity for the artificial induction of abortion for the relief of gravid nausea may be reduced to a minimum.

"VI. And, finally, that in cases which have resisted the employment of all milder expedients, and life still seems threatened, the induction of abortion for the relief of the excessive, obstinate, and uncontrollable vomiting of pregnancy becomes an alternative measure, justifiable alike by medicine and morals."

CHAPTER LX.

PUERPERAL MANIA.

Mental derangements are but imperfectly understood. We note some of the phenomena of the mind, but of the workings of the brain, nerve currents, thoughts, emotions, etc., we are about as ignorant as was Aristotle or Hippocrates. To draw a line clearly defined between sanity and insanity is to-day an impossibility. There is such a variety in the mental peculiarities of those considered sane, so many idiosyncrasies among those whose entire sanity is sometimes doubted (and as often defended), that we can in no manner clearly define the boundary line between sanity and insanity. Still we may be able to clearly distinguish the difference in the two realms of mentality when fully within their borders, figuratively speaking.

If any one thinks he understands mental derangements, let him try to explain the conditions and symptoms which indicate them, and he will soon find how careful he must be in his language not to include in the description of mania some symptoms often manifested by those considered sane. Many books have been written and much said upon the subject, but all have left the matter with their thoughts so shrouded in the profusion of verbiage that they are not easily discerned. This is a charitable view to take of the matter. Here is a wide field for discovery, and I hope that some one will soon be able to give us clearer views of the operations of the mind, both in health and disease.

So far as I can learn there is now no standard by which we can positively judge of mild aberrations of mind. We can not say one is insane on account of peculiarities of judg-

ment, unless these peculiarities have come on suddenly to one previously free from them. For some people are very peculiar all through life, and should we judge them, in comparison with the mass of mankind, we would say they were of unsound mind. They do things which mankind do not approve of, seemingly with the sanction of their own judgment and conscience, and have a distinct recollection of what they have done. This is strikingly exemplified in cases of religious bigotry and zeal, even carried to the extent of murdering their own children and their fellow-men in the service, and to please a GOD of *love*, *mercy*, and *tenderness*. To the world at large, these acts look like evidences of insanity; still, the whole sect to which they belong may approve and applaud.

If a certain act is performed, and the person performing it has no recollection of it, the act is like that of the somnambulist, and he is not responsible. But the trouble arises in this case to make it clear that the act was committed while unconscious. Again, simple forgetfulness will not indicate insanity (would that it did, especially to affect those who forget to do as they agree).

But it is of *puerperal mania* I would speak. We find that there are certain reflex influences from the uterus affecting the brain in some cases. This is first manifested at puberty, the girl's whole mentality seeming to change after the catamenia is established. Again, in disease and displacement of the uterus, pain in the head is of almost constant occurrence. It is, therefore, found to be, as might be expected, that the processes of gestation and delivery affect the brain, and, in some instances, produce aberration of the mind.

Hence we find the puerperal woman manifesting symptoms entirely at variance with the ordinary character of the patient. Sometimes in one way, sometimes in another. In some cases consisting of ravings, disjointed mutterings, etc.; in others, obscenity and vulgarity; while others are indifferent

to their offspring, and even have aversion to them, to the extent of taking their lives, in some instances. These manifestations coming on in connection with gestation, following after, or occurring at, the period of confinement, are termed *puerperal mania.*

There is nothing very peculiar in the disease from other cases of insanity in women, except in regard to its causation, it being dependent upon a want of equilibrium in the nervous system, over-excited and depressed by the irritation of the uterus, affecting especially the nerves, and occurring either during or shortly following gestation.

Diagnosis.

The disease is easily diagnosed. The derangement of mind is not to be confounded with the delirium of puerperal peritonitis. The cases to which the term puerperal mania is properly applied are those where there is no special disease of the system manifested which has brain symptoms in connection with it, although the continuation of hallucinations of the brain after the disease which had appeared to cause them had subsided, for some time, would correctly receive the term puerperal mania, if occurring immediately subsequent to delivery.

Treatment.

Hyoscyamus, Gelsem., Bell., Ignatia, Glonoine, Phytolac. dec., Verat., Puls., China, Ars. alb., etc., may be indicated. Each case must be studied, and the homœopathic remedy selected. Much depends upon the temperament, constitution, and station in life of the patient, her domestic happiness or unhappiness, her inherited diathesis, etc., etc.

One of the first things to be done is to make such arrangements for her care as to prevent her doing injury to any one. The physician should be very careful on this point, as we know how liable these patients are to commit extreme acts; and her friends are not likely to appreciate

the danger; they, having known her as full of gentleness, tenderness, and love, can not think she would do any violence. The patient should be in a temperature which is moderately cool, but she must be well protected with clothing. Her general health may be such as to admit of her taking exercise; if so, she may ride or walk in pleasant weather. Close confinement is not desirable, except when absolutely necessary, owing to her general health, her violence, or liability to make immodest exposure of herself.

The nourishment should be governed by the condition of the patient. If hyperæmic, let her live on light diet—vegetables, fruits, etc. If anæmic, give meats, soups, and as generous a diet as she can digest. Frequent bathing, with frictions to the entire cutaneous surface, is of great utility.

Indications for Remedies.

Ars. Alb., great weakness, with nausea; alternations of heat and cold; aching of the limbs; diarrhœa accompanying the cerebral symptoms.

Bell. has the flushed face; rush of blood to the head, etc.

China, after excessive hemorrhages; atonic and anæmic condition.

Gelsem., for violent raving; sees demons; fright; despondency.

Glonoine, stupidity; muttering delirium; congestion.

Hyos. is indicated in a disposition to weep, and with a tendency to be immodest.

Ignatia, in nervous tremors; restlessness; exhaustion.

Phytolac., in scrofulous patients; lymphatic temperament.

Puls., when the disease is accompanied with loss of appetite, and pain in the back of the head.

Verat. Alb., violent disposition; cold sweat upon the forehead; passive congestion of the brain.

CHAPTER LXI.

DISEASED AND DEFORMED NIPPLES—MILK FEVER—ABSCESS OF THE BREAST—TUMORS OF THE BREAST, CANCER, AND AMPUTATION OF THE BREAST.

Excoriated Nipples—Fissures of the Nipples.

These affections, though not dangerous, are extremely painful to the patient, and merit the earnest attention of the physician, as one important duty of his is to relieve the sufferings of his patients.

These affections occur, of course, during lactation. The child is sometimes allowed to nurse almost continuously on account of fretfulness and colic (which, by the way, is an efficient means of making the colic and fretfulness worse). The nipple becomes denuded of its epithelium, or becomes cracked, and then every effort of the child to nurse becomes very painful. The mother is placed in an agony of pain each time she gives the child the breast.

If only one nipple is affected she is inclined to let the child nurse the other entirely, and leave the affected nipple alone, which tends to produce an over-fullness of milk, and develop mammitis or mammary abscess. There is perhaps no affection of women which causes more dread and agony than excoriated and fissured nipples.

Treatment.

Arnica, internally and externally, is an excellent remedy. *Basilicon ointment*, pressed down into the fissure, after wiping the parts dry from all the secretions of the child's mouth after nursing, is the most efficient remedy I know. *Calendula*, *Borax*, *Alum*, and *Collodion* are used by some. I have used them all, but none equal *Basilicon ointment* in my experience.

It is of great importance to have the child nursed as seldom as possible in these cases, (*i.e.*) not oftener than three hours, using one breast one time and the next time the other. This gives six hours for the healing process to go on. We will often obtain better results by using Kent's nipple shield when the child nurses, which will help to prevent tearing open the laceration, and allows of the formation of new epithelium.

The *Basilicon ointment* is as harmless to the child as anything which can be used upon the nipples; and, besides, is the most efficient. It is composed of *Olive Oil* four parts, *Pitch*, *Wax* and *Resin*, each one part. It is stimulating, and it is in accord with homœopathy to apply an irritant to cure an irritation, though it be applied externally instead of internally.

Retracted Nipples.

This affection, which is sometimes due to abnormal development, or to the contraction of a cicatrix following an abscess of the breast which has opened, or has been lanced near the nipple, is also due to the pernicious fashion of the ladies of this day in using pads to simulate breasts, or to make the appearance of a large development of the mammæ; and in the case of large development of the breast, the use of corsets to compress them, the ladies seemingly unwilling, in either instance, to allow nature to have her way at all. The result has been retracted nipples in many, and generally an imperfect development of the breast in the majority of American women. Retracted nipple tends to the development of mammary abscess, by preventing the free evacuation of the milk tubes, and is productive of much trouble and suffering.

Treatment.

The retraction caused from a cicatrix, and, in most cases, those of abnormal development, can not be remedied, and we

have to content ourselves with drying up the milk in the breast so affected. This can usually be accomplished with alternate bathing of the breast with *Camph.* and *Bell.* every two hours. Those cases caused by pressure can many times be relieved by the frequent use of the breast pump. Kent's metallic nipple shield and cartouch teat is the best invention for use in these cases. It is very simple, free from rubber tubing, is easily cleansed, adheres firmly to the breast without causing constriction of the nipple or of the lactiferous ducts.

Milk Fever.

The term milk fever is applied to a slight fever which usually affects the parturient woman on the third day after delivery; sometimes, however, coming on a little earlier. It is connected with the activity about to be established in the mammary glands, causing the secretion of milk in them. When moderate, we can but consider the increased activity of the circulation at this time only as a physiological condition. The student needs to note this, as otherwise he might be unnecessarily alarmed at the symptoms manifested at this time.

Sometimes there is a slight chill experienced by the patient on the second or third day. This usually lasts but a few moments, and is followed by heat, flushed face, increased rapidity of the pulse, dry skin, etc. This fever may last several hours (usually from four to six); but sometimes it continues all day. The development of the milk in the breast is usually followed by a cessation of the feverish symptoms, and they do not return.

The secretion in the breast previous to the development of milk is termed *colostrum*. It is a watery fluid, slightly milky in appearance. When nursed by the child it seems to affect the bowels and cause them to act. In exceptional cases, milk is secreted in the breasts for months before confinement.

Etiology.

The causes of this fever seem to be, the congestion in the breasts, preceding the secretion of milk, and the sympathetic nervous excitation induced by this condition.

Diagnosis.

A little care needs to be exercised in the diagnosis, as it is possible that "*Puerperal peritonitis*" might come on at this period; or the patient might be suffering from some other condition which produces fever, and we might be at fault in passing the whole matter by as of little moment. Especially should we be careful in the diagnosis, when the fever is very high, or the chilly sensations return; and, also, when we find tenderness and distension of the abdomen, or very great tumefaction or tenderness of the breasts.

An overloaded stomach, incipient pneumonia, etc., may cause the high fever at this time; and we need to recognize these conditions if present, and treat the case accordingly.

Treatment.

Generally speaking, milk fever needs no treatment. After confinement the child should nurse from the breasts twice a day the colostrum found there; and the patient's diet should be very bland, consisting of gruel or toast, with a little warm milk, etc. No meats or soups should be allowed before the fourth or fifth day. Cold should be carefully avoided. A few doses of *Bell.*, 6^{x} or 30^{x}, may be given with good effect, and is usually the only remedy indicated.

Milk Abscess, Mammitis, Mastitis, or Weed; sometimes termed Ephemera, Galactocele, Abscess of the Breast, Mammary Abscess, Broken Breast, etc.

The terms ephemera, galactocele, or weed are applied to an attack of inflammation of the breasts, which subsides in

a day or two without suppuration; while the terms mammary abscess, abscess of the breast, and mammitis are applied to those cases of inflammation of the mammary gland which progress for some days, and tend to the development of pus.

Symptoms.

The attack of mammary abscess is ushered in with a chill much like an ordinary intermittent, followed by fever, and generally ending in perspiration. The breasts are swollen, tender, and very hard, especially in some particular part. At first this hardness and tumefaction is confined to a small space in many cases, but gradually, and sometimes rapidly, extends and enlarges, so as to embrace the half, and sometimes the entire, breast. Intense pain in the head, forehead, and eyebrows is complained of; the face is flushed; mouth and tongue dry; pulse hard and rapid. The secretions of the kidneys, liver, etc., as well as the mammary glands, are suppressed. There is sometimes delirium; at other times, great despondency and fear of death.

If the inflammation goes on for several days softening is observed, which gives indication of the formation of pus. This is also signalized by the occurrence of a chill. In a week or so, if not artificially evacuated, the pus finds its way to the surface by ulcerative action, and breaks through the skin in one or several places. This has given rise to the term "broken breast." During this time the pus is finding its way to the surface the intensity of the pain in the part is very great.

These attacks of inflammation of the breast are not peculiar to the period immediately following delivery, but may occur at any period during lactation, the most usual time, however, being during the first few months. Sometimes, 'tis true, they occur during the first week after delivery, and a little care is necessary then to discriminate between the attack of milk fever, puerperal peritonitis, and

inflammation of the breast. The use of ordinary skill and care will, however, make the correct diagnosis easy.

Etiology.

Cold is the most frequent cause of these conditions of the breast, the cold in the breast causing an arrest of the lacteal secretion, or its retention in the lactiferous glands, from obstruction in the *tubuli lactiferi*, causes inflammation, enlargement, and tenderness of the breast, as just enumerated.

Treatment.

Bell. internally, and locally applied externally to the breast, is the remedy to abort the disease, keeping the breast warm, and applying warmth to the extremities. If in spite of this treatment the disease goes on to suppuration, poultices of flax-seed meal or slippery-elm, applied warm and continuously, are useful in softening the hardness and helping to invite the ulceration towards the surface. When the fluctuation is very distinct it is best to lance the abscess, and thoroughly evacuate all the pus, and then apply compression in such a way as to cause all the matter to freely pass out and cause adhesions of the walls of the sac. This can sometimes best be done with long strips of adhesive plaster; at other times with bandages, always taking care to leave an opening for the free exit of all pus that may be formed. *Merc. iod.*, *Hepar sulph.*, or *Ars. iodid.* are very generally indicated in the suppurative stage; and afterwards we must prescribe remedies according to the particular condition of each case.

Malignant and Non-malignant Tumors of the Breasts, Induration, Gangrene, Hypertrophy, etc.

Various tumors develop in the breast, of both malignant and non-malignant varieties.

Gangrene of the breast is seldom seen, and only occurs in

women of broken down constitution, and usually in those only who are also affected with scrofulous or syphilitic disease, entailing an impoverished condition of the blood. Gangrene has been known to be occasioned by the protracted use of *Ergot* by women of middle age.

Hypertrophy of the breast may affect the entire gland or only a part. It consists of simple enlargement of the normal structures of the gland. It is chiefly troublesome on account of its increased weight, and the patient may demand its amputation for this reason.

Non-malignant or Benign Tumors of the Breast.

These are lacteal, sero-cystic, hydatid, and adenoid.

The lacteal tumor of the breast results from an obstruction in the lactiferous ducts, and we have treated of it under the head of abscess of the breast, though strictly a milk tumor is not an abscess (as it contains milk instead of pus). The quantity of milk sometimes contained in a lacteal tumor is astounding. Dr. W. Parker* reports a case where three quarts of fluid were evacuated at one time from one of these tumors. The swelling in these cases commences usually within three weeks after delivery, and very soon shows fluctuation. There is little tenderness or inflammation in the breast, but the sub-cutaneous veins are enlarged and distended. Sometimes the milk is partially absorbed and carried into the circulation, leaving a residue of thick creamy or cheesy matter. This becomes encysted, and may remain for a long time as an indurated tumor, without giving any trouble to the patient.

Treatment.

Where the milk tumor is of considerable size and on the increase, it should be evacuated with a trocar, and then injected with a *Solution of Iodine*, about 5 grs. of *Iodine* and 15 grs. *Potass. iodide* to the ℥ of water. After being injected,

* Gross' Surgery, Vol. II, page 911.

and the injected fluid has passed away, we should compress the breast with adhesive plaster or bandages carried over the shoulder and around the body, so as to bring the walls of the abscess in contact to promote their adhesion. Small tumors of this kind may be left to themselves, or we may give *Bell.*, *Merc. iodid.*, etc., internally, and apply *Iodine* or *Camph.* externally to promote their absorption.

Adenoid Tumors, Indurations, etc.—This form of tumor occurs in the young unimpregnated woman, either in the married or single. It produces no constitutional effect. It is a hard, indurated, irregular tumor, varying in size from the very small tumor not larger than a hazelnut to the size of a child's head. When removed by operation it creaks under the knife. The tumor is inclosed in a capsule of condensed cellular tissue, and is composed of a pale grayish, blue, or brownish homogeneous substance. Bluish veins are seen over its surface, but it occasions little or no pain or inconvenience, except from its weight, in case it is of large size.

Treatment.

Adenoid tumors require no treatment unless they attain large size, when their extirpation is advisable. Local applications and internal medication are of no avail in this form of tumor.

Sero-cystic Tumors of the Breast.—Sero-cystic tumors of the breast occur in women usually between the twentieth and fortieth years of their ages. They often attain great size. They do not produce constitutional symptoms, and there is no sympathetic enlargement of the axillary glands, as in malignant disease of the breast. They are not painful, except from their weight. Extirpation is their treatment, which is effectual. They do not return.

Hydatid Tumors of the Breast.—These are very rare, and it is scarcely necessary to more than mention their possible occurrence and say that extirpation is the treatment

required. It is usually impossible to diagnose them till after removal or by examination of their contents after making an incision into them, when they are found to consist of innumerable minute cysts. They do not cause enlargement of the axillary glands, cause pain at night, or produce constitutional disturbance. After thorough excision they do not return.

Fatty Tumors of the Breast.—Fatty tumors of the breast are exceedingly uncommon. Gross relates but one case, and that one from Brodie. This was situated back of the gland and pushed it forwards. The only remedy is extirpation. Dr. Gross* says: "I would suggest the Bantam system of diet in such a case. Allow the patient no cream, butter, sugar, milk, or fat meat, or starch; but let her eat lean meat, fish, all vegetables, except potatoes and beets, and all kinds of fruit. Allow acidulated drinks." This plan of diet is calculated to rapidly reduce the adipose tissue in any case; and we believe it might be found to have a salutary effect upon fatty tumors of the breast, though we have never tested it in such a case.

Cancers or Malignant Tumors of the Breast.

The most common malignant tumors of the breast are the scirrhus (or hard cancer) and encephaloid. Melanosis and colloid are occasionally found.

Scirrhus of the breast sometimes occurs after the climacteric period is passed. It has been known to develop in women from seventy to eighty years of age. Isolated cases are reported where it has affected young girls, even as young as twelve years. I removed one breast for scirrhus in a lady but twenty-four years of age. Such instances are, however, extremely rare. Spinsters are liable to the disease as well as the married. The left breast is affected more frequently than the right.

* Gross' Surgery, Vol. II., p. 914.

Symptoms.

The patient usually complains of sharp lancinating pains, occurring mostly at night, in one breast. On examination, there is found an indurated tumor of small size, uneven, and nodulated. The axillary glands of the corresponding side are found enlarged and tender, and the patient exhibits the sallow, tawny complexion characteristic of the cancerous cachexia. The disease progresses very slowly; by degrees the nipple is found to be more and more retracted, the tumor enlarges, and blue veins are seen over its surface.

In some instances, scirrhus commences in the integument of the breast, or the underlying cellulo-adipose tissue. In the former case, it is of very small size, bluish in color, round and movable. When situated in the cellular tissue it is felt deep-seated, though movable, generally oblong and nodulated; after several months it approaches the surface, the tumor becomes fixed, the nipple retracts, the skin over it becomes bluish, and sloughing commences, and a foul, irritable fungous opening is established. This results from all forms of scirrhus sooner or later.

Encephaloid or Soft Cancer. — The soft or encephaloid cancer of the breast is much more uncommon than the scirrhous, or hard cancer, just described. This form of cancer develops rapidly in comparison with the hard variety, often in a few months attaining the size of a child's head. The tumor commences deep in the substance of the breast, and soon ulcerates, and throws out a sort of fungous growth. The pain is comparatively slight in encephaloid, compared with scirrhus. The constitutional disturbance is, however, marked, and the cancerous cachexia is unmistakable. Death generally brings relief in from six to ten months from the time ulceration commences.

Colloid, alveolar or gelatiniform, cancer in the breast is

seldom met with. It is of slow development, is of a grayish color, dense, firm, glistening.

Melanosis of the breast occurs sometimes in connection with scirrhous cancer. It consists of an infiltration into the cellular tissue of material of a dark, sooty color, which hardens into nodules. These deposits have a tendency to suppuration, and usually return after removal.

Treatment.

In all varieties of tumors of the breast (except the fatty) a generous, unstimulating diet is to be given. Hygienic measures are to be rigidly enforced. In the non-malignant varieties of these tumors we may expect a cure, either with medicine or by surgical operation. In simple hypertrophy *Iodine* in the 4^{x} dilution (or ten-thousandth potency) is an efficient remedy; or we may sometimes find that *Ars. iodid.* is more clearly indicated. These remedies, as well as *Phytolac. dec.*, may reduce the size of either variety of the non-malignant tumors of the breast.

In the cancerous, or malignant tumors we can not expect a cure with either remedies or by surgical means. Remedies must be used according to the homœopathic indications in each case. Among the remedies most frequently indicated we will find *Ars.*, *Apis*, *Conium*, *Macrotis*, *China*, *Nux*, *Bry.*, *Sulph.*, etc.

Amputation of the Breast, or Exsection of the Tumor.—In the malignant tumors of the breast it is of but little use to operate, for at best the disease is sure to return in a few years. Removal of the growths with caustic paste is also just as unsatisfactory. The removal of the whole or a part of the breast in cases of large, hard, non-malignant tumors of this gland is often advisable.

Operation.—The patient is to be placed under the influence of an anæsthetic, and then placed upon the operating table. The incisions should be made in the skin of an ellip-

tical shape, so that when the tumor is removed the integument may be brought together, and have no redundancy.

The first incision should be in the direction of the fibers of pectoralis major muscle, if possible (sometimes, owing to the position and shape of the tumor, this rule must be ig-

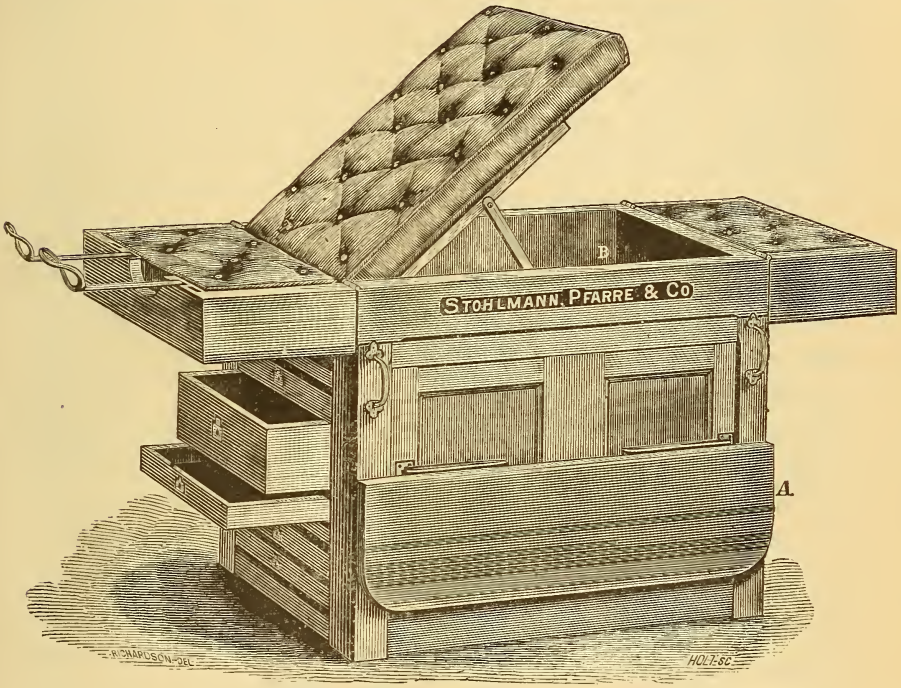


FIG. NO. 64.—OPERATING TABLE.

nored), and should encircle the lower part of the tumor, and should include the skin and cellular tissue. The tumor should now be held up by an assistant while we dissect off the lower flap of integument from the tumor.

After this is done, we make a similar incision upon the upper side of the tumor, and dissect back the flap as before. We now grasp the tumor with the left hand, and dissect it out with the right, peeling it out as much as possible, using the fingers, or the handle of a scalpel, for this purpose, and incising such tissues as we find we can not lacerate. An

assistant should seize any artery we may divide with the artery forceps, and use torsion if it be small, or let another assistant ligate it, if it be of considerable size. After the removal of the tumor, and we have ascertained that all oozing of blood has been arrested, we may lay the flaps together; apply a compress of soft cloth wet with warm water and *Arnica;* gently apply a bandage, and allow the patient to revive. Remove her to her bed, and give *Arnica* 6^{x} every half hour, unless she sleeps; if so, let her alone, only applying sufficient covering to maintain the warmth of the body.

After six or eight hours we remove the bandages and compress, and ascertain if there is any hemorrhage, and after giving a little *Chloroform* we proceed to fix the flaps in position with interrupted silver wire suture, bringing the ends of the ligatures (if any have been used) out at the most dependent portion of the wound. Apply long adhesive straps to support the tissues and prevent strain on the sutures, and over these apply a compress and bandage as before, moistened with *Calendula wash* or warm water and *Arnica.*

No opiates or stimulants are required. Lay the patient so that the fluids which may accumulate under the flaps may find exit readily. The compress should be removed and charged every six hours at most; and *Arnica* 6^{x} should be given internally every three hours. Gentle, plain nourishment only should be allowed. The ligatures will ordinarily be found loose in about five or six days, when they may be removed, as well as the sutures at about this time. If the secretions cause the lower flap to pouch down, and they do not find exit, we should make an incision at the most dependent portion, and allow them to drain away. If adhesion of the flaps to the muscular tissue of the ribs does not readily take place we may inject some *Solution of Iodine* to stimulate granulations and adhesions. We must keep up gentle pressure till the flaps have become adherent.

CHAPTER LXII.

PHLEGMASIA DOLENS—PUERPERAL PHLEBITIS, OR MILK-LEG.

This disease is peculiar to women, and is usually connected with the puerperal state, though phlebitis of the limb has been known to affect men,* following ulceration of the intestines and disease of the hæmorrhoidal veins; and also has occurred in connection with cancer of the rectum. Ramsbotham,† White, Hewson, Twedie, Cheyne, Ferrion, and Dewees mention cases occurring independently of the puerperal state; but to one case occurring independently of the puerperal state there have probably been ninety-nine in connection with it. Of late years the disease seems to be less frequent than formerly, several late writers having failed to make any mention of it.

An attack of phlebitis usually occurs during the first four weeks after confinement, although sometimes later. The inflammation is supposed to commence in the uterine veins in these cases, and extend to the iliac and crural veins. The disease may affect one or both of the lower limbs; generally only one is affected, but sometimes it migrates from one to the other. Blundell,‡ Campbell,‖ and Churchill§ state that the left limb is most frequently affected. This is my own experience, and has also been observed by Ramsbotham.¶ The tendency of the disease is to progress to a gangrenous condition, especially of the cellular tissue; in cases where this is affected, ulceration at some point being a not uncommon result. It seldom, if ever, attacks the same limb twice.

*Lee, page 163.
†Ramsbotham's Obstet., page 490.
‡Obstetricy by Costle, page 786.
‖System of Midwifery, page 371.
§Midwifery, page 462.
¶Obstet., page 488.

Diagnosis.

The symptoms in a case of phlegmasia dolens, or puerperal phlebitis, are very much the same as in ordinary inflammatory attacks—the rigor followed by heat, fever, etc. The wiry pulse is sure to be present in the early days of an attack; the pain, however, is only moderate in the pelvis, and is severe in one of the lower limbs.

On examination of the limb we find it much swollen, especially in its upper part—the foot and ankle remaining normal in most cases, but the calf of the leg is generally somewhat affected. The swelling is hard and slightly elastic to the touch; the color of the integument of the affected limb is white and glossy. The distension of the tissues is sometimes enormous.

For a day or two preceding the swelling of the limb, in some cases, we may feel the inflamed veins in the upper part of the limb like cords, as hard as tendons. The swelling is distinguished from dropsy in not pitting on pressure. It is not red and shiny like erysipelas, but white and glossy. As the disease progresses the fever and pain abate, the swelling becomes less tense, the tissues commence to pit on pressure.

In bad cases dark spots appear in several places, varying in size from a half dollar piece to the palm of the hand, and sloughing sometimes takes place. There seems to be a great variety in the seat of the inflammation, sometimes affecting the internal coat of the veins, and giving rise to the formation of pus, in which case the symptoms of pyæmia are manifested. The case then assumes typhoid symptoms, and the outcome is doubtful. In other cases the outer coat of the veins is mostly affected, and the inflammation extending to the cellular tissue, gives rise to a great amount of effusion of lymph and serum, though the case may not be as dangerous to life as when the internal coat of the

veins is affected, though in the latter case there is much less swelling.

Etiology.

The disease evidently in most cases commences in the uterine veins, and their large distension seems to predispose to an attack. Those cases which have been affected with post partem hemorrhage are most liable to the disease; not, I think, so much that the hemorrhage causes the inflammation, as that a condition of atony and dilatation of the veins causes both the hemorrhage and the attack of phlebitis, the immediate or exciting cause being cold, arrest of insensible perspiration, glandular action, etc.

I need not occupy space and time in noting the various theories which have been held regarding this complaint since the commencement of the history of medicine. Suffice it to say, that the profession is now well satisfied that the disease is one of inflammation of the veins primarily; and secondarily, of the cellular tissue of the limb. The œdema, or rather great enlargement followed by œdema, is due to obstructed circulation in the veins. To Dr. David Davis* we are indebted for elucidation of the pathology of the disease, aided in later years by Dr. Robert Lee. It is my duty to say, that the disease has been occasionally caused by suppression of menstruation and cold, causing inflammation of the veins of the uterus and limb; also, in a few instances of malignant disease of the womb crural phlebitis has resulted. These cases are, however, exceedingly rare.

Post-mortem Appearances. — The crural and femoral veins are found obliterated, and converted into cords in some cases. In others, pus is found in the hypogastric, common iliac and femoral veins. In cases where sloughing had occurred, the femoral vein was obliterated. The iliac glands are sometimes found inflamed, and sometimes converted into abscesses.

* Reports Medico-Chirurgical Society, Vol. XII, p. 419.

Treatment.

Aconite and *Secale cor.* are indicated in the outset, either singly or in alternation, followed by *Bell.* or *Bry.* Evacuating the bowels with enemæ of tepid water, and putting the patient into a warm pack, are very useful adjuncts. We should keep the lower part of the body and limbs well wrapped in flannel. In some cases *Merc.*, *Ars.*, *Rhus*, *Carbol. acid*, etc., are indicated.

Indications for Remedies.

Aconite, for the wiry pulse; chilliness; fever; restlessness; dizziness; dry, hot skin, etc.

Ars. Alb., for great prostration; alternating heat and cold; aching of the limbs; restlessness; thirst; nausea; œdematous swelling, etc.

Bell., for dullness of sensation; intolerance of light or noise.

Bry., for sharp, cutting pains in the affected limb.

Carb. Ac., in a tendency to suppuration; great exhaustion (used in 6^{x} dilution).

Merc.—Dry, shiny skin; torpidity of the secretions; diarrhœa; weakness, etc.

Rhus.—Exhaustion; pain while still, relieved by motion; inability to move the affected limb, etc.

Secale Cor.—Numbness and coldness of the limbs; diarrhœa; stupid condition of the brain (Cowperthwaite).

If a slough forms, a poultice of yeast is to be applied; and after the dead tissue is separated *Vaseline* may be applied to the sore, and the whole lower part of the limb should be bandaged with a roller applied evenly and gently, commencing at the foot, and applying the bandage upwards. The limb should be kept elevated upon a hard pillow.

CHAPTER LXIII.

HYPERTROPHY, AND SUB-INVOLUTION OF THE UTERUS.

Hypertrophy of the uterus is a condition of chronic enlargement or thickening of its tissues. Sub-involution is applied to the chronically enlarged uterus following the delivery of a child or fœtus. It may either follow confinement at full term, premature delivery, or abortion.

The uterus after impregnation seldom becomes reduced to the size of the organ in the virgin state, except in old age; but the enlargement above the normal condition is but slight—about one-half an inch, as a rule. While the virgin uterine cavity measures about two and one-half inches, the uterus after impregnation seldom measures less than two and three-fourths or three inches, after the uterus has been emptied of its contents, and complete involution has taken place. The uterus must, then, show a measurement in excess of three inches before we can term it hypertrophied, or call it a case of sub-involution, and then we can not where the elongation is due to hypertrophy of the cervix.

Sub-involution is one of the most common conditions which we find among the ailments of women, and demands more attention than is usually given the subject (for several authors on "Diseases of Women" have entirely ignored it, while others have given it but a page or two). It causes many of the cases of leucorrhœa, displacements, symptoms of spinal disease, mental hallucinations, dyspeptic symptoms, etc., etc.

Chronic sub-involution and hypertrophy of the uterus are usually accompanied with a low grade of chronic inflammation, termed chronic metritis, or areolar hyperplasia. This inflam-

mation often extends to the ovaries and peritonæal membrane, as well as the cellular tissue. In this condition the body and cervix of the uterus are both usually affected about alike; but in some instances the fundus alone is affected, the cervix being normal. Where the cervix alone is enlarged the disease is termed hypertrophy of the cervix, and is treated of separately by most authors. I shall follow the usual plan of nomenclature, and intend that the reader shall understand that by hypertrophy of the uterus we mean either enlargement of the whole organ or the fundus.

Symptoms.

The symptoms characteristic of hypertrophy, we can only positively ascertain by the aid of the uterine sound, which will show an elongation of the entire uterine canal; and at the same time we note the absence of elongation of the cervix uteri. Besides this distinctive symptom, we have thickening of the walls of the uterus, to be determined by pressing one hand above the pubis, while the sound is introduced with the other to the fundus. When the disease affects both the body and cervix, we feel the cervix thickened and enlarged in all directions, but more prominently in a lateral direction, though occasionally it is also much elongated. In introducing the sound, the expert notices the internal opening of the cervical canal into the body of the uterus by its more contracted condition; and if we withdraw the sound,

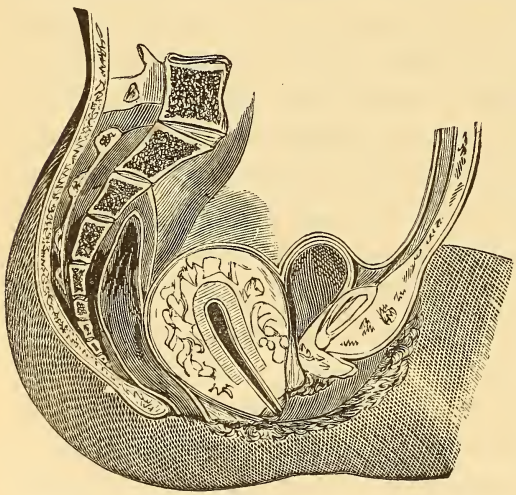


Fig. No. 65.—Sub-involution, with Procidentia of the Uterus.

and observe the length of the cervix, and again measure the cervix and body together, we can determine the relative enlargement of both or either, as the case may be. In these cases there is usually a feeling of weight in the pelvis, a bearing down sensation often in both back and bowels. Defecation is usually difficult; and frequently dysuria is complained of. Usually a leucorrhœal discharge is present, which stains the linen worn a yellow color, though it may appear white as it emerges from the vaginal orifice. Usually in cases of hypertrophy the uterus is lower in the pelvis than normal, owing to its increased size and weight. (See Fig. No. 65.)

Retro-flexion or ante-flexion is quite frequently found to complicate these cases, the former being more common than the latter.

Etiology.

The cause of hypertrophy is most frequently inflammation, sometimes, it is true, moderate in degree, but, nevertheless, inflammation, or a condition of areolar hyperplasia, causing gradual enlargement from effusion of plastic material into the interstitial tissue. These inflammations which give rise to hypertrophy are caused by cold at the menstrual period, excessive venery, the use of remedies to prevent conception or produce abortion, rising too soon and taking cold after a miscarriage, the retention of a small portion of the placenta, cold baths, and cold vaginal injections, caustic applications to the os uteri, the wearing of improper and ill-adjusted pessaries, tight lacing, excessive dissipation, over-work, heavy lifting, suppressed menstruation, uterine tumors, etc., etc.

The cause of sub-involution is supposed to be an atonic condition of the system, and especially of the nerves of the pelvis, causing want of firm, muscular contraction after delivery, leaving the uterus flabby, tending to produce flexions, and with all the blood-vessels dilated there is a tendency

to favor congestion and effusion. We find in women who are exhausted with frequent gestations and lactations a greater liability to this disease than in those of robust health. Laceration of the cervix in labor is also a fruitful cause of hypertrophy and sub-involution of the uterus. (Reference to the chapter on Lacerations of the Cervix will more fully explain).

Treatment.

The first thing to do in the treatment is to remove the operating cause, if it can be ascertained. The next is to rectify any flexion or version which may complicate the difficulty. Little can be done to remove the hypertrophy or the symptoms accompanying it until this is done. With this accomplished we may observe great benefit from the use of *Secale*, *Nux*, *Sepia*, *Bell.*, *Iod. of Ars.*, *Ars. of China*, or *Kali iod.*, given homœopathically, in accordance with the totality of the symptoms in the case. In some instances these remedies will prove curative by establishing an activity of the absorbents, and producing contraction of the blood vessels and muscular tissue as well as tonicity of the nerves of the uterus and the entire system, thereby strengthening digestion and assimilation as well.

Regarding local treatment great diversity of opinion exists, some claiming that local treatment is of no use, others relying upon it almost, if not quite, exclusively. My own experience is in favor of a combination of local and general treatment, using both internal remedies as indicated, and also some local treatment. The local treatment should be varied according to the condition of the uterus.

If somewhat tender and soft, compressible and spongy to the feel, I get fine results from the application of *Glycerine* and *Hydrastis Tr.*, equal parts, applied directly to the cervix by means of a cotton wad inserted in the vagina, or by inserting a sponge tent, partially moistened with the same medicine, into the cervical canal. This treatment causes

a drainage of the serum from the parts. The sponge tent compresses the capillary circulation and repels its activity, thereby reducing the congestion and size of the organ. Tents may be used made of cloth wound around bonnet wire, in shape like the ordinary sponge tent. These may be saturated with the same medicine, or *Glycerine* and a *Solution of Iodine* or *Comp. Tr. Iodine*, and inserted well up into the fundus uteri. These tents are highly recommended by Professor Hunt, of Covington, Kentucky, and I can add my own and many others' experience in favor of their efficacy in some cases.

Medicated *suppositories* have long been used by the allopathic profession, and an effort is being made by the manufacturers to inveigle the homœopathic profession into their use. We are sorry to say that we think more zeal than wisdom is manifested by some physicians in advocating them. Remedies may be more readily administered by the mouth than the os uteri in most instances; and they are not likely to cause as much injury given in proper attenuation by the first named method. We feel that administering remedies *via* the os uteri as a rule (which some would seem to desire should become a general practice) is running gynæcology into disrepute.

We do not say that good may not sometimes result from their use. Allopaths have obtained good results from scarifications of the cervix uteri, and from leeching it. Must we rush in and adopt such practice just when they are beginning to learn better? We think not. Some uteri will not tolerate the presence of any substance in the cervical canal without being thrown into spasmodic contraction, causing the patient great pain. The suppositories sometimes do this. This is one objection to them; another is, their expense; and, thirdly, they are unnecessary.

We feel it our duty to say this to the student, although the experienced gynæcologist will occasionally find a case of

well dilated cervix where the local application of some remedies like *Glycerine*, *Hydrastis*, *Belladonna*, or *Iodine* may be tolerated, and in a few cases may act beneficially in this form. They are not so very easy of introduction, as has been stated by interested parties. A well dilated os uteri is necessary in the application of any intra-uterine medication. With a soft, long-handled brush we may apply these remedies to the cervix conveniently; and in most cases this is the preferable plan in the treatment of hypertrophy or sub-involution. In some cases of hypertrophy and sub-involution there is absence of tonicity and sensibility, a want of feeling instead of tenderness. In these cases I use electricity as a stimulant, using a gentle current with the uterine electrode in the uterus, and the other electrode to the spine, gently increasing the current till it is felt by the patient in some small degree, then allowing it to pass steadily for about three minutes, using this treatment once in three days; sometimes for two weeks,

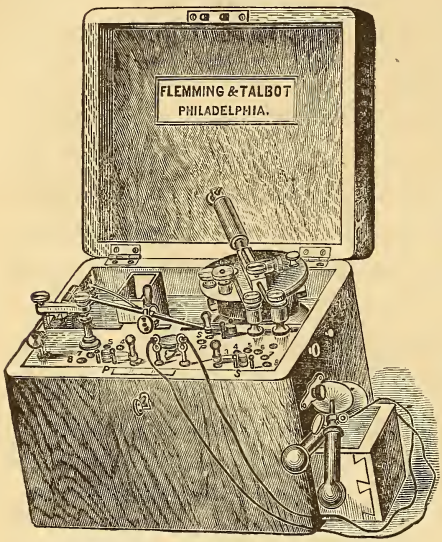


Fig. No. 66. — Faradic Battery.

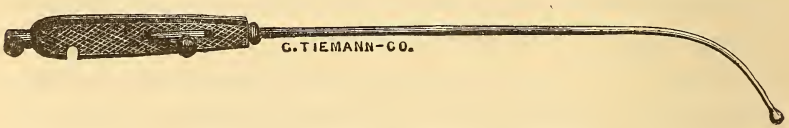


Fig. 67.—Intra-uterine Electrode.

omitting the electricity and applying *Tr. Iodine Comp.* to the cervix with a soft brush, and introducing it into the cervical canal with a probe covered with cotton and saturated with the wash.

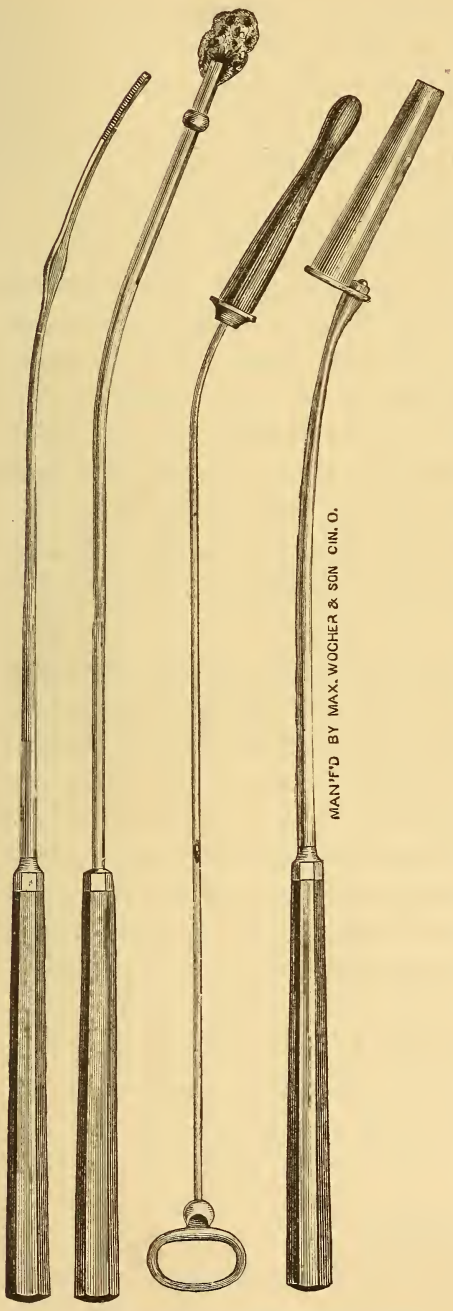


FIG. NO. 68.—PALMER'S UTERINE APPLICATORS.

Professor Palmer, of this city, has invented a set of uterine applicators which makes the application of remedies to the intra-uterine surface quite easy and thorough. (See Fig. No. 68.) The right hand figure represents a tube with a handle, which is to be introduced into the cervical canal after having placed in it the plug printed beside it. This rounds the extremity of the tube and renders its introduction easy, when the canal is well dilated. We now withdraw the plug and introduce the sponge saturated with the medicine by means of the long sponge holder, as seen in the next figure; or we may wrap the probe (figure to the left hand) with raw cotton, saturate it with the medicine, and apply to the intra-uterine surface through the tube first mentioned. Without the tube we may apply the medicine thoroughly to the cervix, and with it, to the interior of the fundus.

CHAPTER LXIV.

HÆMATOCELE, PELVIC HÆMATOMA, THROMBUS, ETC.

It is now only about twenty years since hæmatocele has been at all well understood by the profession; although as early as 1843, M. Velpeau had the honor to diagnose the disease during life, without making an explorative incision.

Hæmatocele, sometimes denominated thrombus, pelvic hæmatoma, peri-uterine hæmatocele, etc., consists of a blood tumor or effusion of blood into the peritonæum, or into the cellular tissue of the pelvis. Its location is usually posterior to the vagina; and, I think, most frequently, in *Douglas' cul-de-sac*.

Source of the Hemorrhage.—Bernutz and Trousseau supposed the hemorrhage to be from retained menstruation, flowing back through the Fallopian tubes into the peritonæum; but this view is untenable, as there is suppression in but few cases of hæmatocele, and it is now well understood that the contents of the distended uterus will not pass through the Fallopian tube readily. The hemorrhage may come from the bulb of the ovary or from the rupture of the Graafian follicle in some cases, which, though usually producing no hemorrhage, may do so from the rupture of a small blood vessel; in this case, the blood would be contained in the peritonæum. If it arise from the pampiniform flexus, between the folds of the broad ligament, or from about the vaginal junction with the uterus, the blood will be contained in the cellular tissue.

Etiology.

Hæmatocele is most common in women who are exhausted from frequent gestations, and those who labor, the rich

being seldom affected. The unmarried and barren are also seldom affected. I have, however, seen one case in a lady forty-two years of age, who had always been barren, though married over twenty years. It occurs generally during the woman's greatest genital activity.

The laceration of a sort of false membrane formed over the ovary, as a result of peri-metritis at the time of the rupture of a Graafian follicle, may cause this hemorrhage. Rupture of the distended ovary is another cause which may produce hæmatocele. Generally occurring at the period, or just following a normal menstruation, it is apparently connected with this function; usually, in my own experience, caused by straining or hard work while menstruating, when the pelvic blood vessels are distended with blood. It is not strange that some severe exertion might lacerate some of them in this condition. Excessive coitus has appeared to cause hæmatocele in some cases. The hyperæmic condition of the system may predispose to the disease, as well as a condition of extreme impoverishment of the blood, and the condition called *purpura hæmorragica.*

Symptoms.

The occurrence of an effusion of blood into the peritonæum, or into the cellular tissue of the pelvis, produces the faintness which any other great loss of blood would induce, preceded in some instances by severe, lancinating pain in the pelvis. This pain in the pelvis is more or less constant for some days. There is often vomiting and considerable fever. The face exhibits a shrunken, cadaverous appearance; the extremities are cold; pulse rapid, weak, and sometimes almost imperceptible. There is usually constipation, but the constipation is sometimes accompanied with a distressing tenesmus.

On making a digital examination *per vaginam*, we detect the pelvis filled almost entirely, or in part, with a smooth mass, generally situated in the posterior part, and between

the vagina and rectum. This is called a retro-uterine, or recto-vaginal, hæmatocele when the tumor consists of blood. Sometimes we find the mass seems to surround the vagina, and it is then called peri-uterine hæmatocele. In case the tumor occupies the entire posterior part of the pelvis, as represented in Plate XXVIII, it shows that the blood is infiltrated into the cellular tissue.

In case the effusion is into the peritonæum, and the blood gravitates into *Douglas' cul-de-sac*, the tumor is found higher in the posterior part of the pelvis, behind the cervix uteri, and feels circumscribed. Sometimes we may feel fluctuation, and sometimes we can not, depending upon the amount and condition of the effusion.

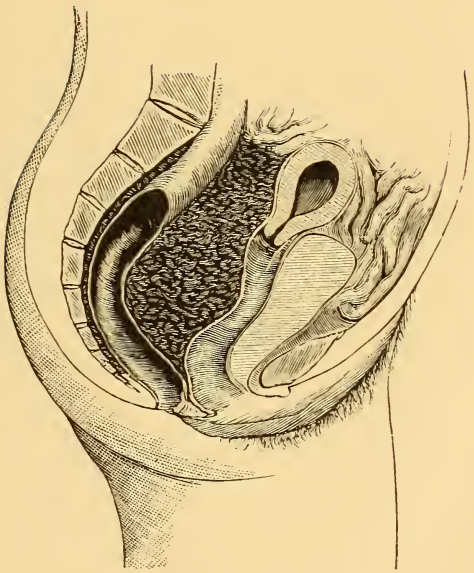
When the effusion is into the peritonæal cavity it may, after filling the lower portion of the abdomen, extend upwards, even reaching to the umbilicus.

It will be observed by this description so far, that hæmatocele is only a symptom of an effusion of blood, and that the cause of the effusion, and the exact locality of the point from which it comes, is often very obscure. Hence, we name the condition as hæmatocele, though not a disease in itself *per se*. As time passes the symptoms in most cases moderate, although there may be more tenderness in the vagina for a time, and a considerable febrile condition. In other instances we have symptoms of acute inflammation in the pelvis, resulting in the formation of a pelvic abscess somewhat similar to that occurring in cellulitis. Extreme sensitiveness of the stomach is one of the most constant symptoms of these cases. There is also often much cystic irritation, the urine either being passed with difficulty or frequently with much pain. Sometimes the use of the catheter is demanded in these cases.

Prof. Byford* gives to this accidental hemorrhage the term Metatithmenia, signifying misplaced or vicarious men-

*Byford on "Diseases of Women," p. 101.

Plate XXVIII.



RECTO-VAGINAL, OR PELVIC HÆMATOCELE, WITH ELEVATION OF THE UTERUS.

struation. But as this term would indicate a suppression of normal menstruation it is not applicable, as there is suppression of the catamenia in very few cases of hæmatocele.

Hæmatocele may occur several times in the same patient. Dr. Byford has seen over twenty attacks in one patient during a period of seven years. Sometimes women suffer from slight hemorrhages of this character at nearly every menstrual period; and the presence of this effused blood in the vicinity of the ovary gives rise to a burning pain, hot flashes, and general sympathetic disturbance of the entire system, consisting of backache, headache, general nervousness, palpitation, nausea, etc., etc. In some of these cases it is hard to differentiate between them and ovaritis, or mild peri-metritis. Still, the significant symptom will be found to be the occurrence of fainting, which does not ordinarily take place in the other disease just mentioned; and the attack is usually after the menstrual flow has ceased, corresponding to the time of the rupture of the Graafian vesicle, which occurs soon after the menstrual flow.

Differential Diagnosis.

The differential diagnosis between pelvic hæmatocele and cellulitis, pelvic abscess, retro-version of the uterus, ovarian cystoma, etc., deserves some attention. The onset of the attack with faintings occurring without much, if any, premonition, is very characteristic of hæmatocele (but might be a symptom of cardiac disease). The attack of cellulitis occurs with chilliness, soon followed with heat and fever, accompanied with the similar pain as in hæmatocele. In hæmatocele the face is blanched and cadaverous, in cellulitis it is flushed and plump; pressure upon the tumor of hæmatocele through the vaginal walls causes little pain if examined soon after the attack before cellulitis complicates the case.

In cases which are complicated with cellulitis and the formation of an abscess, we have to depend largely upon the

history of the case for differential points. The slow growth of ovarian cystoma and its height in the pelvis, with its development in the abdomen, will distinguish it from hæmatocele, being free from the symptoms of faintings and severe pain.

If retro-flexion of the uterus is suspected, we had better make an effort to rectify the misplacement; if menstruation has been recent we may at once pass the sound, and discover in a few moments the nature of the case. I was recently called to see the wife of a physician who had had the counsel of an eminent surgeon a few days before, who had (without the aid of the sound) diagnosed retro-version. I immediately passed the sound, and found the uterus normal in position, and diagnosed a recto-vaginal hæmatocele (from the history of the case and vaginal examination), which was undergoing suppurative inflammatory action. My diagnosis was confirmed in a few days by the discharge of the abscess into the rectum, followed by relief and health. The violent efforts which this consulting surgeon made to replace this tender hæmatocele with his fingers was injurious and painful to the patient, and disgraceful to himself.

In pelvic cellulitis the tumor develops more gradually, is more tender on pressure, is generally more diffused, though not always. There is some heat in the vagina in cellulitis, and very little in a recent hæmatocele.

Extra-uterine pregnancy, either ovarian, tubal, or abdominal, may slightly simulate hæmatocele. The tubal and ovarian pregnancy may produce hæmatocele from the laceration likely to occur about the third month, and the hæmatocele in these cases may contain a fœtus. This is most likely to be discovered at the autopsy which we will have an opportunity to make soon after the laceration occurs.

Prognosis.

Generally, the prognosis is favorable. About ninety per cent of these cases recover. We have, however, to fear

adhesions, perforations, exhaustion; thickening of the walls of the uterus, rectum, bladder, or vagina, or severe inflammation. Sometimes months are required for recovery, while in others the cure is effected in two or three weeks.

Our prognosis must be modified by the amount of inflammation, exhaustion, diarrhœa, etc., which is present, diarrhœa sometimes supervening upon the condition of constipation usually first present.

Treatment.

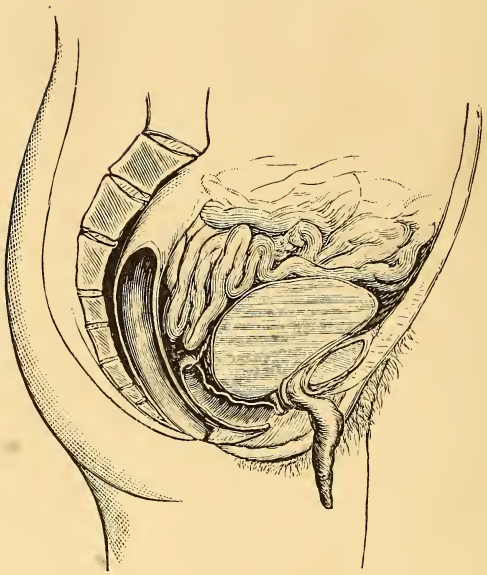
If called to a case of hæmatocele in its first stage, while the hemorrhage is going on, we should at once give *Ipecac* or *Aconite*, followed in a few hours with *Secale*, and apply cold to the pelvis. But it is not often we are called till the hemorrhage has ceased, the tumor of large dimensions in the pelvis, and the patient suffering from exhaustion, at which time we should select remedies best suited to the condition, such as *China*, *Ars.*, *Chi. ars.*, *Nux*, *Ignatia*, *Rhus*, etc. Beef tea, wine-whey, egg-nog, and the like, should be given, and warm vaginal and rectal enemata should be used. Warmth should be industriously applied to the extremities and about the pelvis. Perfect rest and quiet must be enjoined and secured, with good air and the best of nursing.

Evacuating the effused blood is sometimes demanded by the urgency of the symptoms of pain and enormous distension, in which case it should be done with a long curved trocar, and liquid *Persulphate of Iron* should be diluted four times with water and injected if the blood seems to be still flowing from the ruptured vessels. In the great majority of cases there is no call for surgical interference; but allowing nature to have her way is usually the best practice, aided by remedies, diet, and warm vaginal and rectal injections; often the effusion is absorbed without producing serious injury: whereas, too much interference might cause an increase of inflammation, which might result fatally. When suppuration takes place (which is characterized by rigors and a feeling

of fluctuation supervening on hardness of the tumor), it is sometimes advisable to evacuate the pus by a free incision of the bistoury through the vaginal wall, the abscess being for some reason more liable to point into the rectum and leave an internal fistula, or cause pyæmia through the absorption of pus into the general circulation.

The treatment of an abscess caused by hæmatocele does not differ from one caused by cellulitis. The hardness caused by coagulated blood, called *Thrombus*, is more likely to result in abscess than where the effused blood does not coagulate, and remains fluid.

Plate XXIX.



HERMAPHRODITE, OR NONENTITY.

UTERUS ABSENT. VAGINA SMALL. CLITORIS ENLARGED.

CHAPTER LXV.

ELEPHANTIASIS OR HYPERTROPHY OF THE CLITORIS, LABIA MAJORA, AND LABIA MINORA, HERMAPHRODITES, NONENTITIES, TUMORS OF THE LABIA, ETC.

Elephantiasis or hypertrophy of the clitoris is quite rare. (See Plate No. XXIX.) I have seen but three cases in an experience in hospital and private practice of over twenty years. It occurs as a congenital deformity, and as an acquired affection from diseased action.

Occurring as a congenital affection, in connection with partial atresia of the vagina or abnormal development of the uterus, ovaries or vagina, has given rise to the term hermaphrodite, signifying the union of both sexual organs in one person, as in these cases the labia are ordinarily developed. The term *nonentity*, we think, would be more appropriate, as they certainly can not be considered either male or female.

The enlarged clitoris in these cases is capable of little or no erection, and can not be used as a copulative organ to any considerable extent. A sort of sexual excitement with slight erection is sometimes possible, but there is no semen secreted or ejaculated.

On the other hand, we can not consider such persons as females, as the absence of the vagina, uterus or ovaries, very common in these cases, makes them incapable of copulation, or conception, though in case of enlargement of the clitoris from disease, the vagina and uterine organs may be perfect, and copulation and conception be possible. Such a person would, of course, be a female deformed, and not a *nonentity* or *hermaphrodite*. In one case which I saw the sexual instinct seemed entirely wanting. In the two other cases it

existed somewhat in excess. These were cases of hypertrophy from inflammatory action, one in a lady aged about twenty-three, the other over fifty. Neither suffered much inconvenience from the enlargement, except a slight irritation and soreness at times.

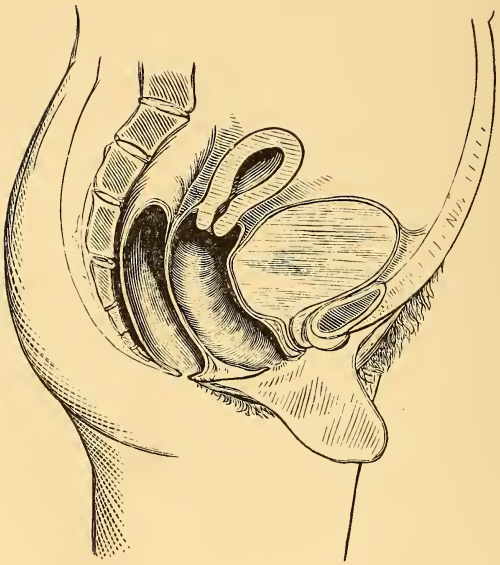
Nymphomania is said to be caused by, and be the cause of, enlargement of the clitoris, but I have not observed it. Dr. C. D. Palmer, of Cincinnati, reported two cases to the Cincinnati Medical Society, at the October meeting, 1879. They were two sisters, in whom menstruation had been entirely absent, though they had attained to the ages of twenty and twenty-two years respectively. This absence of menstruation and a failure to effect its establishment by remedies, led to a physical examination, which revealed the vagina in each, short and small, the clitoris large and long, resembling greatly the penis. No uterus could be found in either. The parents of these persons were first cousins, and both died of phthisis.

A. S. Taylor, in his work on Medical Jurisprudence, reports a case of Prof. Mayer's, of Bonn, which is the nearest approach to a true hermaphrodite which I can find on record. The autopsy revealed on the right side a withered testicle with a prostate gland and penis; while on the left there was the uterus, ovary, Fallopian tube, and vagina.

Around these cases clusters considerable interest, not only on account of their abnormal development, but on account of their legal rights as individuals,—whether they may vote or not, as being a ground for divorce, and regarding the paternity and maternity of offspring claimed to have been born of such people.

Hypertrophy of the labia minora, or nymphæ, is more common. It may also occur as a congenital or acquired deformity. Sometimes only one side is enlarged, and sometimes both. I have thought that these women were more than ordinarily passionate, and their own testimony corroborates the correctness of the statement. The labia minora extend,

Plate XXX.



HYPERTROPHY OF THE LABIA MINORA.

in many of these cases, much beyond the labia majora (see Plate XXX), and as they are very elastic they may be drawn down six inches or more. These cases are much more frequent than enlargement of the clitoris. They seem ordinarily to consist of a pure hypertrophy of tissue. Though perhaps not thicker than normal, they are enormously enlarged in circumference. Their friction against each other in walking seems to excite sexual passion, and give rise in some cases to nymphomania. Normally in young girls the labia minora are larger proportionately to the labia majora than in womanhood; but this condition in the young girl is not to be considered a diseased or deformed condition, as they shrink when the girl becomes older, and the labia majora becomes more developed.

Hypertrophy of the labia majora is said to be more common in the East—*i. e.*, Eastern Hemisphere—than with us. Here it is seldom met with, except as the result of the development of tumors in the parts (which may be solid or cystic). These solid tumors may be fibrous or fatty. Usually but one side is affected in the same person.

Diagnosis.

The diagnosis of either of these conditions is to be made by physical examination. There is no opportunity to be mistaken in regard to their nature. The question of greatest interest is regarding their treatment.

Treatment.

The enlargement of the clitoris usually demands no treatment. It has been amputated, but the operation is not recommended.

The enlargement of the nymphæ is sometimes such a source of irritation and annoyance as to demand removal. This is easily and safely accomplished with scissors, after placing the patient under the influence of an anæsthetic. (See Fig. 69.) The hemorrhage is usually not severe, and

may be arrested by applications of cold cloths. If a blood-vessel is cut of any size, it may be twisted with forceps, or ligated. The *Ferri persulph.* should, however, be at hand in case of troublesome oozing of blood. The entire nymphæ

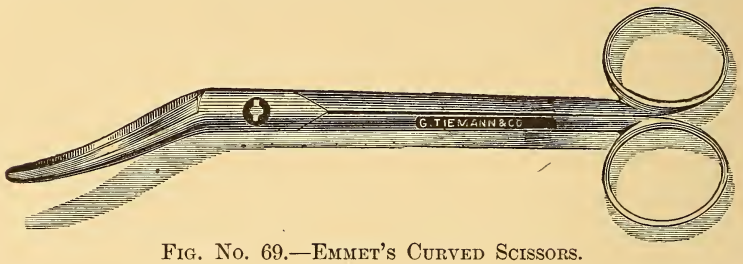


Fig. No. 69.—Emmet's Curved Scissors.

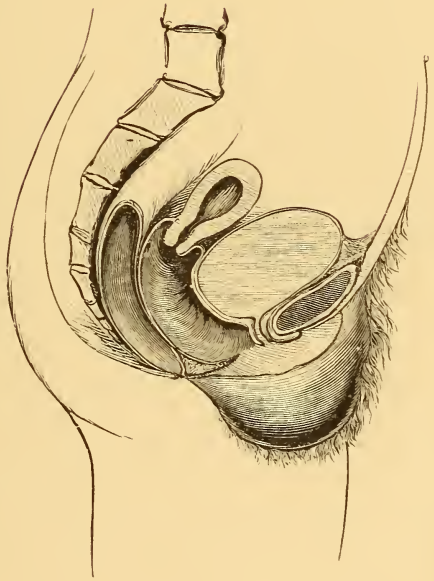
need not be removed, as the excision of the excess of development is all which is required.

In hypertrophy of the labia majora nothing need be done unless the enlargement is so excessive as to obstruct the limbs in walking, in which case the enlargement is usually due to the growth of a tumor in its substance, or pudendal hæmatocele. This may be removed by incising the mucous membrane, and enucleating the tumor, if possible. This can readily be accomplished in case the tumor is fibrous, hard, encysted, or fatty; but when cystic it is sometimes impossible, in which case we may evacuate the cyst, and attempt to peel off the cystic wall with the fingers, or the handle of the scalpel, being careful about incising the deep tissues of the labia. If we can not detach the cyst wall we may mop it out with *Tr.* of *Iodine*, and apply compression.

After the removal of the *tumor* in the labia the enlargement shortly disappears by absorption. Small, hard, or encysted tumors, or thrombi in the labia, may exist for many years without causing any inconvenience, and, hence, require no treatment.

Thrombi in the labia, or pudendal hæmatocele, may cause an abscess, in which case it is to be evacuated, and treated as directed under the head of "Abscess of the Labia."

Plate XXXI.



HYPERTROPHY OF THE LABIA MAJORA.

CHAPTER LXVI.

EXTIRPATION OF THE UTERUS—ABLATION OF THE UTERUS, HYSTEROTOMY, ETC.

EXTIRPATION of the uterus has been, and is still, considered one of the most formidable operations in surgery.

There is little experience to guide our opinion of its advisability. Péan, of Paris,* gives the results of forty-four cases, by different operators, of partial or complete ablation of the uterus, by gastrotomy. Fourteen recovered, and thirty died. Dr. Péan does not appear to mean that the entire uterus was extirpated, but that the supra-vaginal portion was, as he says:† "Amputation of the supra-vaginal portion of the uterus is not an operation of much graver character than extirpation of ovarian cysts complicated by adhesions."

The operation can not be advisable in cases of cancer, as the entire system is so much affected as to make the appearance of the disease in other parts only a question of time. Large intra-mural uterine fibroids (either subserous or submucous) give rise to the advisability of the operation for the extirpation of the uterus by means of gastrotomy.

T. Wood, M. D., of Cincinnati, stands to-day the most successful operator in extirpation of the uterus (so far as I can learn) who has ever lived. He reports eight cases of extirpation of the uterus, with but three deaths. His report was published in the *Cincinnati Lancet and Clinic*, and republished in the *Obstetric Gazette*, March, 1879. I take pleasure in making a quotation of his report, and presenting cuts of

* "Hystérotomie," by J. Péan and L. Urdy, Paris, 1873.

† Thomas's "Diseases of Women," p. 519.

the tumor and uterus removed from case No. 8 (for which I am under obligation to the publishers of the *Lancet and Clinic*).

"I wish to distinctly impress on your mind the fact, that in every operation given in this report, the body of the uterus was removed—amputated through the neck as close to the vaginal connection as possible without opening the vaginal cavity. The removal of fibroids is secondary, and not the prime object to which I wish to claim your attention. I make this report to give evidence that it may be construed by the profession as favorable or unfavorable to hysterotomy. The question whether a woman can bear without a fatal result the complete ablation of her uterus and thereafter enjoy life and health, is the one that an enlightened profession now desires to have answered either in the affirmative or negative. Then if in the affirmative every individual operator desires to have light from the experience of others—to determine whether any special case that may come under his care can possibly survive so formidable a procedure.

"Tables of statistics are valuable guides to the formation of a correct judgment, but at the present time, though there are several extant, they are too loosely put together or inefficient to establish clearly the legitimacy of the operation. So we find that wherever the operation is presented to any of our learned bodies for discussion a great diversity of opinion is expressed, and the preponderance is adverse to its performance.

"If we examine the tables of Dr. Samuel Pozzi, of Paris, published in 1875, we find tabulated all of the reported operations up to that time; but if we examine closely the cases here tabulated, we discover that the largest number were only gastrotomy with partial operations on the uterus, and in many that organ was not touched by the knife, as when pedunculated, sub-peritoneal, or fibro-cystic tumors were

removed, and should not be set down either for or against hysterotomy.

"Of the 119 cases tabulated by Dr. Pozzi the smallest number were complete operations, the balance were partial as applied to the uterine body. Further analysis shows that the partial operations were more fatal than the complete.

"This view of Dr. Pozzi's tables confirms the opinion that has long since been forced on me by sad experience, that partial operations on the uterus when reached by gastrotomy are more fatal than its entire ablation. I could give many cases that have occurred in my own practice that fully sustain this opinion. If an ovarian tumor or cyst impinges on the uterus and becomes closely adherent to it so as to require a dissection to separate them, it will very much enhance the danger of the operation, and will most likely prove fatal.

"I might speculate much in explanation of this fact, but will dismiss the subject with the remark that the uterus is much more tolerant of violence done to the interior mucous surface than to injury through that of the peritoneal.

"Case First.—Mary W——, widow; was admitted to the Commercial Hospital, Oct. 1st, 1866. Her abdomen was enlarged to about the size of a six months' pregnancy. Enlargement hard and smooth, occupying the medium position—is only slightly movable. She has a constant leucorrhœal discharge from the vagina—frequent attacks of pain in the abdomen—painful micturition—and great difficulty in forcing a passage from the bowels. The tumor was first noticed by her about three years before her admission to the house.

"The diagnosis was; fibrous tumor of the uterus, and its removal by abdominal section was decided on. On the 31st of October I operated in the presence of a large class of students and medical gentlemen of the city. The early steps of the operation were the same as in ovariotomy,

and are so familiar to you all that I need not repeat them here.

"The patient was, of course, anæsthetized, chloroform being the agent used. The uterus containing the tumor was raised from its position and supported by assistants—while ligatures were applied to the ovarian vessels on each side, and lateral attachments were dissected from the uterus down to its connection with the vagina. Here a needle was passed through the neck of the uterus armed with a strong, double silk ligature. The ligatures being tied, the neck was cut off and the tumor removed. The ends of the ligatures were brought out together at the lower end of the abdominal wound, and the subsequent dressing was the same as in ovariotomy.

"The loss of blood was very small, and the prostration of the patient was not greater than in ovariotomy. The ligatures separated, and were taken away on the twentieth day after the operation. The suppuration ceased, and the wound was closed in about thirty days after the operation. and the patient was up and about the house. She soon after getting up began to show symptoms of phthisis, and in about three months died of tubercles in the lungs.

"Case Second.—Mrs. B——, of Newport, Ky., presented herself with two well-defined tumors occupying the left and right iliac regions, extending as high as the umbilicus, and one developing in the pelvis occupying the fossa of Douglas, and pressing severely on the rectum, bladder and vagina, and forcing the os uteri above the pubis so far that a sound could not be made to enter it. She suffered much from retention of urine and feces. On the 17th of June, 1872, I operated in the same manner as in case first, but found much difficulty in dislodging from the pelvis the lower tumor, merely from its size and impaction, but there were no peritonæal adhesions.

"The arteries and pedicle were secured as in the first

case, and the same dressings applied. The progress of recovery was very favorable up to the twenty-seventh day. She had been up and walking about the room, (though the main ligature had not parted) when she was suddenly taken with severe abdominal pain, soon sank in collapse, and died the same day. A post-mortem revealed fœcal matter diffused between the convolutions of the bowels. A small opening was found in the ilium, where it had rested near the uterine stump; from this the contents escaped. I had used very strong, thick, hard-twisted ligature for the pedicle, and it had irritated the point of the bowels that pressed against it, ulcerating through the coats. Since then I have used none but the softest, slack twisted *silk*.

"CASE THIRD.—Mrs. C——, of this city had a trilobed tumor, almost precisely the same size and form of the one taken from Mrs. Burns. I operated on the 29th of October, 1872. She recovered perfectly and is now living.

"CASE FOURTH.—Mrs. C——, of St. Louis, had a single fibroid of the uterus, that, when removed, weighed 5½ pounds.

"She suffered with paroxysms of severe pain in the abdomen, and cerebral and nervous disturbance. She would often fall as with epilepsy, and sometimes remain for two or three days completely unconscious. I operated on her on the 14th of April, 1874. The uterine sinuses and ovarian veins were much enlarged and distended with very dark, venous blood, and a large quantity of blood was lost in operating.

"Since the removal of the disease the peculiar nervous disturbance has entirely disappeared, and she enjoys comparatively good health. She is still living, and visited this city a few weeks since.

"CASE SIXTH.—Mrs. B——, of St. Louis. In this case there was a fibroid within the uterus that carried it some distance above the umbilicus. The tumor had existed about

four years, and her general health was much broken. Loss of appetite, vomiting after eating, and considerable emaciation; her complexion was bad, presenting a peculiar, waxy exsanguinous appearance. I operated on the 6th October, 1874. The operation was performed on Tuesday, and she died on the Friday following of peritonitis. I had to remove an ovary.

"Case Sixth.—Mrs. F——, of Jefferson County, Ohio. There were two large fibroids in this case—one developed in the pelvis and the other above the pubis, reaching as high as the umbilicus.

"The bladder was attached to the upper tumor in front, and had to be dissected from it for a distance of five inches. The broad ligaments were thickened and drawn tightly across the uterus between the tumors with strong adhesions, requiring much dissection to free the lower tumor from its bed in the pelvis. The operation was made on the 24th of October, 1874. The patient recovered and is now living, enjoying, I believe, good health.

"Case Seventh.—Mrs. S——, of New Richmond, Ohio. This was a trilobed tumor, one in the pelvis and two above the pubis. One ovary had several small fibroids growing upon it and had to be removed, and the neck of the uterus was so much involved that I had to ligate the vagina, and had to remove the entire uterus.

"The bladder was attached to the sulcus between the two upper tumors, and was twisted round so as to be behind them. The lower tumor was firmly adherent at many points, and had to be dissected loose, and several arteries in those adhesions had to be tied.

"I operated on the 9th of November, and did not see the patient that day; but she reacted favorably, and seemed to promise a good recovery until about Christmas, when a hemorrhage from the vagina made its appearance, continuing until New Year's day, 1875, when she died, living fifty-three days after the operation.

"CASE EIGHTH.—Miss C., aged thirty-six years. Noticed an enlargement of the abdomen about twelve years since. Did not experience much inconvenience before the last two years. Now suffered very much at her menstrual periods, though she has always been regular and never troubled with profuse menstruation. Uses *Morphia* largely. The tumor is

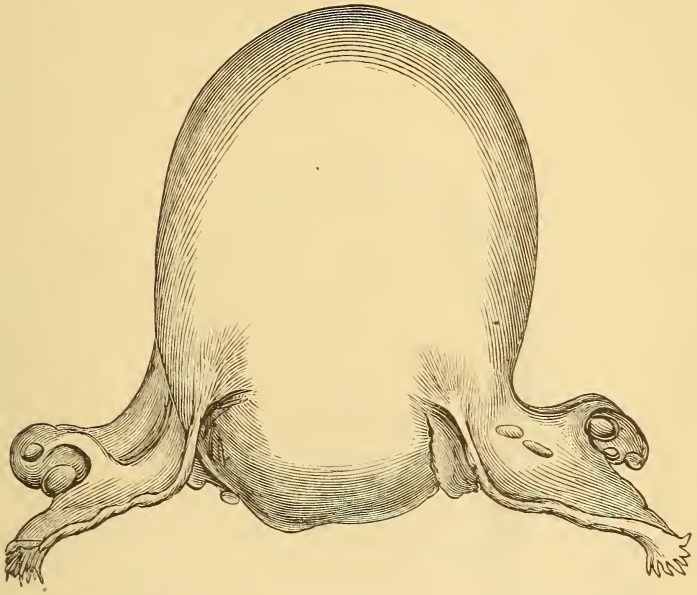


FIG. NO. 70.—EXTIRPATED UTERUS.

solid, smooth, and even on its surface. Slightly movable, and extends nearly to the ensiform cartilage. She is emaciated, and bears a haggard, distressed countenance. She was operated on on the 20th of February, 1878.

"The abdominal incision was extended about two inches above the umbilicus before the tumor could be raised from its position. Both ovaries were involved in the disease, and were removed with the uterus. Her recovery was slow, being retarded by the immoderate use of *Morphia*, which I could not, for a time, prevent. She eventually left off the *Morphia*, gained health and strength rapidly, and made a good recovery. She now lives in this city in full enjoyment

of perfect health, walks all around the city, goes to picnics, and says she never felt better in her life.

"The cuts exhibit two views of the tumor from Case 8th, one anterior and one posterior.

"The termination of these eight cases, then, was as follows:

Mrs. W——, recovered.	Mrs. B——, died.
Mrs. B——, died.	Mrs. F——, recovered.
Mrs. C——, recovered.	Mrs. S——, died.
Mrs. C——, recovered.	Miss C——, recovered.

Recoveries, 5; deaths, 3.

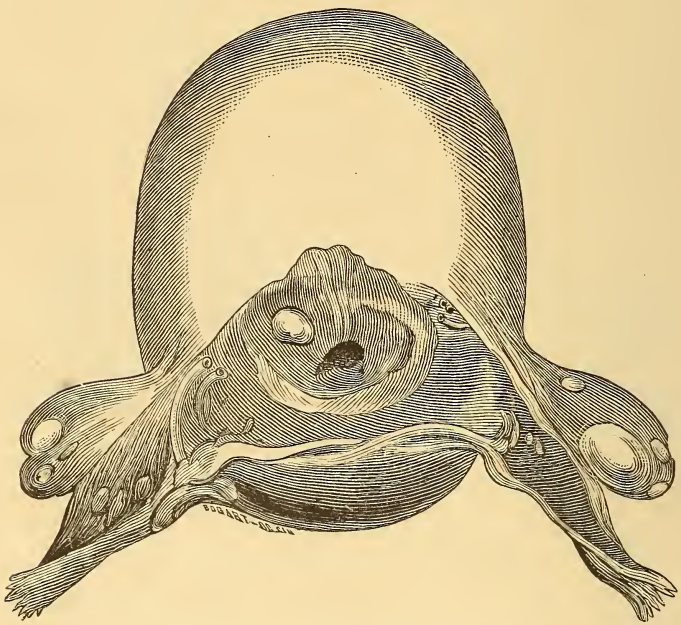


Fig. No. 71.—Extirpated Uterus.

"Dr. Gilman Kimball, of Lowell, Massachusetts, in his report on 'Extirpation of the Uterus' (see 'Transactions of the American Medical Association,' Vol. XXVIII, page 330), in enumerating the dangers and objections to the operation, says:

"'Another difficulty oftentimes met with in this operation is adhesions, more or less extensive. If these implicate

the bladder, as they frequently do, they of course add immensely to the embarrassment as well as the dangers of the operation.'

"Two of my cases had this very complication, requiring extensive dissection to separate the bladder from the tumor. One of them recovered, and the other survived the operation fifty-three days, and had no urinary inconvenience resulting from the dissection. Again, Dr. Kimball says (on the same page): 'There is still another class of uterine fibroids where surgical interference would be still more objectionable than in the cases just referred to. I allude to instances where the disease has developed in a downward direction and become *fixed*, as it were, in the lower portion of the pelvic cavity. . . . In such a state of things extirpation would scarcely be thought of except by the most reckless operator.'

"And yet four of my cases had just 'such a state of things,' and it was because 'that state of things' existed and rendered the lives of my patients an intolerable burden that I was called on for relief, and for which I operated. Two of the four recovered, and are now living; two died, one twenty-seven days and the other fifty-three days after the operation."

We notice that in the one case where the vagina was ligated and the cervix was removed with the body of the uterus the patient died.

Extirpation of the fundus uteri would appear a more appropriate term than extirpation of the uterus, or ablation of the uterus, as used by Professor Péan in such cases. Professors Wood and Péan have demonstrated the practicability of removing the fundus uteri, together with a fibrous tumor of the walls of the uterus, Dr. Wood giving us a report of sixty-two and a half per cent of recoveries from the operation.

CHAPTER LXVII.

HYSTERALGIA — NEURALGIA UTERI — IRRITABLE UTERUS — ASCITES IN WOMEN.

The terms *hysteralgia*, *neuralgia uteri*, formerly termed *irritable uterus*, etc., indicate a neuralgic condition of the organ, which is sometimes very severe, although no organic disease of the parts can be discovered. It is to be diagnosed by the severe pain of a neuralgic character in the uterus, and the occurrence in some other parts of the body of neuralgic pain, and from the fact that physical examination reveals no lesion or displacement of the uterus.

It is notable that of late years irritable uterus, hysteralgia, etc., are seldom mentioned, while formerly they were diagnosed almost as frequently as some physicians now diagnose liver complaint (whenever the disease seems obscure). This is possibly due to the fact that uterine diseases of late years have been better understood than they were formerly. It may have been the case that diseases of the uterus, which are now readily diagnosed and treated, were formerly denominated irritable uterus, or hysteralgia, from the fact of pain being suffered in the part, and from the fact that, the physician being unable to discover any abnormal condition of the substance or position of the uterus, no other name seemed appropriate. The uterus is liable to be affected with neuralgia as well as the stomach or other parts of the body, and, consequently, the physician should recognize the disease when present, and treat it properly, though we know from experience that it is not a very common affection.

Neuralgic dysmenorrhœa is of occasional occurrence, but is not one-tenth as frequent as is generally supposed.

Neuralgic dysmenorrhœa we do not discuss as hysteralgia, purely for the reason that its consideration comes as well under the head of dysmenorrhœa. It is, however, strictly one form of hysteralgia.

Etiology.

The causes of hysteralgia, or neuralgia of the uterus, are, first, cold affecting especially the nerves of the system, and manifesting the most severe symptoms at the point of irritation, or in a part connected with the affected portion through the ganglionic nervous system; atmospheric influences, severe mental excitement, imperfect digestion, torpidity of the normal secretions, etc., etc.

Symptoms and Diagnosis.

Pain in the uterus is the important symptom. The pain is of a darting, cutting character, and is changeable, affecting, perhaps, the uterus one hour, and the face, back, or thigh the next. Changing from place to place is, perhaps, the particular characteristic of the pain. Sometimes it is periodical, occurring at the same hour each day, like an ague, or twice in twenty-four hours in some cases. The paroxysms are severe, but when they subside they leave the patient feeling comfortable and easy. Dysmenorrhœal pains are intermittent, but the intervals are short, often not more than five minutes. Examination of the uterus shows the organ to be in proper position; and when examined between the attacks of pain the examination gives no discomfort. There is a small class of cases where the uterus is supersensitive to the touch, although the sensation is a titillation, and not a pain, where excessive sexual passion is present, and where the term irritable uterus seems appropriate. In these latter cases barrenness is the rule; and when conception does occur the uterus soon contracts, and expels its contents, owing to its excessive irritability. I refer now to cases where there

is no leucorrhœa, and where previous to the occurrence of pregnancy the uterine sound had been introduced, without causing any pain, in order to discover if stenosis was the cause of the barrenness.

As we become more familiar with the diseases and conditions of the uterine organs we may discover that all of these painful or supersensitive conditions have a cause aside from nerve irritation. But at present we imagine that the nerve tissue itself is alone affected in some cases of pain in the uterus, giving rise to the propriety of using the terms *hysteralgia*, *neuralgia of the uterus*, and *irritable uterus*.

In diagnosis it is necessary that we do so by exclusion in part—*i. e.*, by determining that this or that disease is not present, which might cause pain if it existed. These patients are usually fretful, moody, irritable, and disagreeable generally. They frequently manifest hysterical symptoms, magnify every thing they speak about, whether good or bad. They are active, but soon tire; are exceedingly lively at times, and again as dispirited as possible.

Treatment.

This complaint has baffled the best endeavors of many skillful men, and must in some cases continue to be an annoyance, because we can not always use all the treatment we judge advisable, on account of the nervousness of the patient. As to remedies, they are usually among the following: *Ars. alb.*, *China*, *Hyosc.*, *Acon.*, *Nux*, *Ignatia*, *Camph.*, *Kali brom.*, *Bell.*, etc.

The diet should be strictly low and plain; stimulants are to be avoided. Placing the patient under the influence of an anæsthetic, and dilating the cervical canal with a dilator partially, and then inserting a sponge tent for a few hours, is sometimes a prompt cure. This overcomes the supersensitive condition of the uterus, the same as dilatation of the vagina relieves vaginismus.

Neuromata of the Vulva.

Neuromata of the vulva signifies the existence of small, sensitive points around the margin of the vaginal orifice. They are of two kinds: The first, and most common, consisting of the remains of the hymen, and the other, true neuromata.

Treatment.

Complete extirpation is the treatment. Seize the sensitive point with the forceps, and lifting it up snip it off at once with scissors; apply styptics if necessary, and anoint with *Vaseline* till healed.

Ascites in Women, Tapping, Abdominal Dropsy, etc.

Tapping the peritonæal cavity in cases of ascites in women is somewhat different from the same operation in men. There is also more difficulty in diagnosing ascites in the female than the male, owing to the uterine and ovarian diseases and enlargements which may simulate it.

Etiology and Pathology.

The causes of abdominal dropsy or ascites in the female are similar to those in the male, with the additional irritation liable to be communicated to the peritonæum from uterine disease, especially inflammation.

Ascites must be preceded by some amount of peritonæal inflammation. It may be of so mild a character as to escape observation by the careless or very busy practitioner, and the pain experienced from it may not be very severe, and still dropsy of the abdomen may result. Abdominal dropsy or ascites consists of an effusion of serous fluid into the peritonæal cavity. The fluid effused is essentially serum, variously changed, owing to the peculiar conditions of the patient.

Peritonitis may exist primarily in the female as well as in the male, or be a result of extension of inflammation from

the bowels or other abdominal organs. Accompanying this irritation there usually is a torpid condition of the glandular system, especially the liver and kidneys, and very frequently there is a want of normal action in the skin, causing an arrest of both sensible and insensible perspiration. This causes an excess of serum in the blood, and it is consequently the more readily effused into the serous cavities.

Diagnosis.

In ascites the lower part of the abdomen is first noticed to be enlarged. This is most observable when the patient is in an erect position, either sitting or standing. While reclining the enlargement apparently disappears as the fluid gravitates upwards while the patient reclines, and downwards so as to distend the lower abdomen when erect. As the disease progresses the entire abdomen becomes so much distended as to be observable when the patient reclines. Percussion with the extended palm communicates a sense of fluctuation to the other hand placed upon the opposite side of the abdomen. Place the patient on her side, and the most dependent portion of the abdomen is found to be dull on percussion, while there is resonance in the upper portion. This is due to the intestines floating to the top, as they usually contain a small amount of gas, which renders them lighter than the effusion with which they are surrounded. This is an important point to recollect in diagnosis.

Differential Diagnosis.

The diseases and conditions liable to be mistaken for ascites are ovarian cystoma, cyst of the broad ligament, uterine fibroma, fibro-cystic tumors of the ovary, intra-mural fibroids of the uterus, and pregnancy (especially extra-uterine pregnancy).

The student is referred to these subjects for a more complete description of the points which differentiate ascites from

these ailments and conditions; but we will briefly note a few here, in order to save time in reading the rather extended discussion of some of these diseases, which we have made in other places in this work. It would not be a pleasant experience to mistake either of these conditions for ascites, and proceed to tap for its relief; hence a careful diagnosis is desirable.

Ovarian cystoma, fibro-cysts of the ovary, and cysts of the broad ligament, develop from the iliac regions, and not from the entire lower abdominal regions, where ascites is first observed. In these diseases the enlargement is felt when the patient reclines, circumscribed in extent, somewhat fluctuating, but not freely so.

In the advanced stages of these diseases they more perfectly simulate ascites than in their smaller development. Here the resonance upon percussion over the superior portion of the abdomen, while the patient is reclining, with dullness on the sides, indicates ascites, while in the case of the cystic tumors the intestines are usually crowded to one side, and there is dullness over the superior part of the abdomen. In ascites the resonance is found in one place at one time, and in another at perhaps the next examination, while in these tumors the resonant portion is found at about the same place at each examination.

The history of the development of the abdominal enlargement is also an aid in the diagnosis. In normal pregnancy there should be an arrest of menstruation, and the enlargement is felt as a circumscribed tumor in the hypogastric region. In the later months of abdominal pregnancy the pulsations of the fœtal heart settle the diagnosis, though pregnancy may be complicated with ascites in some cases.

In extra-uterine pregnancy the tumor is felt circumscribed, and can be felt more distinctly when the patient is reclining upon the back, while in dropsy in its earlier stages the enlargement disappears when reclining. In the later months of extra-uterine, or abdominal, pregnancy the fœtal heart's

throbs again help us in making the correct diagnosis. Uterine fibroma, fibroids of the ovary, and enlargement of the uterus from the development of intra-mural fibrous tumors, are hard to the feel, compared to ascites; and as they have no fluctuation they should readily be differentiated from ascites.

Treatment.

We do not deem it within the scope of this department to enter into the general treatment of dropsy. I will barely say that among the remedies I have found useful are *Ars. alb.*, *Ars. iodid.*, *Dig.*, *China*, *Merc. cor.*, *Merc. iod.*, *Kali iod.*, *Sang.*, *Sulph.*, etc. Remedies should be our main reliance, administered according to their most prominent homœopathic indications, or key-note symptoms, if you please.

As there are occasionally cases which baffle the physician's best endeavors at a cure, palliatives are sometimes demanded. I do not mean opiates or anodynes; but I mean that the friends of the patient, the patient herself, as well as our sympathy for suffering humanity, require we should do something to prolong life, and make it as comfortable as possible while it lasts. For this purpose tapping is expedient and proper. We do not think it wise to recommend or use it, as has been before intimated, till remedies have failed us, and not then, until the patient suffers great inconvenience from the excessive accumulation of fluid, manifested by difficulty of motion and respiration, inability to lie down and rest, derangement of digestion, etc., etc.

Operation.—The instrument necessary for this operation is a short trocar. The patient may sit in an easy chair, slightly tipped backwards. The abdomen is now fully exposed, and a piece of sheet, about two feet wide and the full length of the sheet, should be passed around the body, after being torn down at each end into three strips within about eighteen inches of the center on each side. These should be interlocked, and held by an assistant on either side.

We now make a puncture into the abdominal cavity with the trocar, about midway between the pubis and umbilicus, in the median line. After we feel the instrument pass through the tissues we should at once withdraw the stylet, and then press the canula further in to avoid its slipping out. If we did not first withdraw the stylet we might wound the mesentery, or intestines. A large vessel, previously procured, receives the discharge. We now direct the assistants to make traction upon the ends of the bandage to compress the abdomen, in order to force out the liquid, and also to prevent collapse. Previous to the insertion of the trocar it is best to manipulate the bowels to some extent, to cause the intestines to rise out of the way, and float on the surface of the fluid, so that they be not wounded.

After the fluid is all drained off the canula is to be withdrawn, and a piece of adhesive plaster placed over the puncture. The bandage is now to be slightly relaxed, and pinned. If left too loose, faintness would be likely to ensue; if too tight, the remaining fluid might be forced out of the peritonæal cavity between the abdominal muscles.

By making the puncture in the locality named there is ordinarily little danger of wounding any blood-vessel. The puncture should not be made very much to one side of the median line, for fear of wounding the epigastric artery. If we wound an artery internally, by mistake, the patient will not long survive. If an artery (epigastric) is wounded externally we may try compression by plugging the puncture. If this does not suffice we must incise the puncture sufficiently to expose the artery, and ligate it.

CHAPTER LXVIII.

BATHING—VAGINAL WASHES—STOMATITIS MATERNA.

Water is like fire—very good in moderate amount, but capable of harm when used to excess. Fire may burn your house, though it is very good in the furnace in moderate amount. Water may drown us, or save our lives.

Bathing is a necessity for health; still, it is possible to bathe too much, and at improper times; and while we may well recommend bathing we have often to caution ladies against bathing too frequently. Much depends upon the temperature of the bath and the health of the person. One patient may require frequent bathing for a time, and still it might prove injurious if continued too long. There being such a diversity of opinion regarding bathing and the use of the vaginal syringe, we think it prudent to say a word to the student upon these subjects, not only as remedial, but as hygienic, agents.

Bathing should be used for purposes of cleanliness, and to keep open the pores of the skin, and allow of the free escape of the insensible perspiration constantly going off from the healthy body. For this purpose the water used in bathing should be of a temperature usually termed tepid or warm, ranging from 60° to 70°. The use of pure soap, a little ammonia or soda in the water is not objectionable, if only used occasionally.

Once a week in cool weather, and once a day in very warm weather, a bath may be allowed the healthy person; but she should not, as a rule, remain in the bath more than ten minutes. Remaining in the bath an hour or more, as is the practice of some, debilitates the system, and can not be well endured except by those adipose individuals who seem

to be benefited by a sort of stew. The lean, nervous person will be injured by it.

On rising from the bath the entire surface of the body should be briskly rubbed with a dry, coarse towel. When the temperature of the bath-room is up to 68° or 70° the cold shower bath may be taken for a moment when first rising from the tepid or warm bath, which should be followed by brisk rubbing, as before mentioned. After drying the body thoroughly warm clothing should be put on, and some brisk exercise at once taken, to keep the blood in active circulation. Sitting or riding in cool atmosphere must be avoided after a bath.

Time for Bathing.—The bath may be taken before eating, on first rising in the morning most advantageously, if active exercise can very soon be taken. A patient should not bathe just after a full dinner. It is unsafe to take a warm bath before retiring (the very time many choose). There is much greater danger of taking cold after a bath at this time than when bathing in the morning, and at once engaging in active exercise.

The Sponge Bath.—Sponging the body does not require as much precaution as the full bath. Active exercise after it is advisable, however. The cool sponge bath is most desirable, except in those very feeble patients who would feel chilled by it. This bath must be followed by brisk rubbing until a full glow of the skin is secured.

Medicated baths may at times be of use, as this is but another way of taking medicine into the system. They should only be used of a kind suited to the needs of the patient, and are on no account to be used indiscriminately. In electrical baths, so called, I have little or no confidence.

The Hip and Foot Bath.—The warm hip and foot bath is sometimes of great service in attracting the circulation to the parts, and is useful in cases of amenorrhœa, especially when caused from sudden cold.

Vaginal Washes.

As a rule we do not recommend vaginal washes. Many times, when the full bath, or the hip bath, can not conveniently be taken, the use of the vaginal injection of warm water is desirable for cleanliness of the parts; and they are sometimes useful in allaying irritation of the mucous membrane of the vagina, and exert a good effect upon the interior uterine surface through continuity of surface. In using the vaginal syringe the central opening in the tube should be soldered up tightly to prevent the accidental introduction of the water into the uterine cavity. The tube should not be introduced against the os uteri in any case. The fountain syringe of Davidson, or one similar, is most desirable, because it is simple, cheap, and efficient. The quantity of water used should be large, so as to keep the stream running evenly for some time, the patient sitting the while over the chamber, and pumping the water in a steady stream.

Complicated instruments, for giving vaginal injections will be found more beautiful in theory than useful in practice.

Cold vaginal injections are not only detrimental, they are dangerous. This should be told patients with decided emphasis. They are a fruitful source of uterine disease. Especially should they never be used immediately after copulation (as is done by some to prevent conception). The parts are then in a condition of congestion, and the application of sudden cold is likely to produce inflammation, and produce a nervous shock to the whole system. Cold water thrown by accident into the uterus, in such a case, may produce death in a short time; and should death not ensue, the uterine colic induced is sufficiently severe to cause the stoutest nerves to quail. The depression following is equally alarming, coldness of hands and feet, the feeble pulse, the blanched, cadaverous countenance, are sufficient, when once seen, to produce an impression for life upon the beholder.

But I only wish to say enough to put the student on his guard and cause him to warn his patients in time.

Stomatitis Materna, or Nursing Sore Mouth.

Stomatitis materna is a disease peculiar to women who are nursing or pregnant, but sometimes continues after the mother ceases to nurse her child. Its pathology and etiology are not well understood. It is a distressing complaint, and rightfully comes under the notice of the physician who makes the diseases of women a special study, though very generally ignored by writers upon these diseases.

Etiology.

The cause of stomatitis materna is mainly due, we believe, to the irritation of the stomach from the enlargement or irritation of the uterus, thereby causing irritation of the sympathetic nerves; or producing irritation in the stomach through the irritation of the breasts from nursing in women of scrofulous constitution and nervous organization.

Why uterine disease does not, ordinarily, produce this condition of the mouth we are unable fully to explain. The abstraction from the system of the mother of nutrition, either while the child is in utero or at the breast, seems the most plausible explanation of the development of the disease. It is usually not present in other cases of irritation of the uterus, even where the uterine irritation is apparently much greater than during gestation and lactation; but this cause may keep up the disease. Imperfect digestion and assimilation of food seem to be connected with these cases, rendering the secretions irritating throughout the entire system.

Symptoms and Diagnosis.

Soreness of the mouth is the main diagnostic symptom. This soreness is found to be connected with inflammation of the mucous membrane of the mouth. The inflammation varies

in grade from slight redness to fully developed ulcerative inflammation. It may affect only a small portion of the membrane of the lips or tongue, or it may affect the entire membrane of the mouth and tongue, and even extend to the nasal passages and down into the bronchial tubes.

There is usually present more or less gastric disturbance in the way of heat, burning, etc., or gastralgia after eating. Heartburn and sour eructations frequently occur. Emaciation is an almost constant symptom, especially in severe cases.

If left to itself ulcerative action sometimes goes on to an alarming extent, destroying a large part of the tongue, lips, etc., and causing death through the want of digestion and assimilation, really amounting to starvation; as well as through the ulcerative action, which sometimes affects the stomach and intestines as well as the mouth.

Stomatitis materna seems in a measure hereditary, owing, we presume, to inherited constitutional scrofulous taint and nervous weakness. When a lady once has the disease she appears more liable to have another attack in subsequent pregnancies or lactations; in fact, under allopathic treatment, the disease often reaches over and continues from one pregnancy to another. (See Byford's Diseases of Women.)

Treatment.

In the first place, let the child be weaned if there is a severe and extensive inflammation. If the case is mild, remedies may be tried for a short time, and allow the child still to nurse; but should the remedies fail while the child still nurses, it must be weaned and remedies continued. When the attack come on during gestation palliatives must be used as well as possible, together with indicated remedies till delivery is accomplished, when the lacteal secretion should be suppressed by the use of *Bell.*, *Camph.*, etc., applied locally to the breasts, and let remedies for the cure of the stomatitis be continued.

Among remedies for this disease I will mention *Ars.*, *Merc. cor.*, *Borax*, *Bry.*, *China*, *Ferrum*, *Kali chlo.*, *Phytolac. dec.*, etc. *Arsenicum* emphatically takes the lead, as it is indicated in about every case, and is often the only remedy required. In some cases *Ars.* may be followed with advantage by some one of the remedies mentioned, when used according to the totality of the symptoms. In cases which are pregnant, a valuable palliative remedy is *Borax* and *Honey*, held in the mouth and then ejected. Sometimes *Pulv. Charcoal* is found palliative to the burning in the mouth and stomach in this class of cases.

CHAPTER LXIX.

NYMPHOMANIA (THE "FUREUR UTÉRINE" OF THE FRENCH)—ATROPHY AND HYPER-INVOLUTION OF THE UTERUS—ABSENCE OF THE UTERUS—MALFORMATION OF THE UTERUS—ANÆSTHETICS.

NYMPHOMANIA consists in an uncontrollable desire in women for sexual congress. The passion becomes after a time insatiable and irresistible. At last mental alienation becomes complete, and no sense of modesty seems to be left. The patient will solicit, and attempt to consummate, the sexual act with any man who comes near her, without regard to those present.

Etiology.

The disease is supposed to be usually caused by masturbation. This is, doubtless, often the case; but, we think, not always, as we have personally known of instances where the disease existed in its mildest form, *i. e.*, where we would have been unaware of its existence but for the voluntary avowal of the patient (a condition not suspected by friends), where masturbation was denied by the patient.

In these cases it seemed that a highly nervous organization with complete sexual development, and the excitation of the passions by the reading of exciting works of fiction, the stimulating effect of high living, and the caresses of lovers, had developed the condition, especially as marriage had not been consummated. In one case it seemed to be caused from the incomplete attempts at copulation on the part of a husband, many years her senior, who had become impotent. In another case, where the husband was young, but partially impotent. We have seen other cases, where the very

large development of the nymphæ congenitally seemed to be the exciting cause. Enlargement and hypertrophy of the clitoris seems to have been the cause of this disease in some instances related to me; but I have not seen an instance where this appeared to be the cause.

Symptoms and Diagnosis.

In the earlier stages of this disease the patient is shy of the presence of men, and would be considered rather diffident and modest in company; but while alone with a male friend a striking change is perceptible. The eye kindles and stares, the countenance becomes flushed, and conversation upon immodest subjects is invited by insinuation, or directly commenced herself. The discussion of other subjects is distasteful; marriage, love, lovers, beaux, etc., scandal and the like, seem to be her whole stock in conversation, though she may have been well educated.

After a time her demeanor in company excites comment, and she openly speaks as she formerly would do only in private. Mentally she seems degenerated, memory is evidently impaired, and her attentions to gentlemen become too marked to come within the scope of propriety.

Still later, the disease manifests the symptoms of complete abandonment, without modesty, shame or concealment, to the extent of making it impossible to allow her to come into the presence of men at all. In these sad cases, which may be found in almost any insane asylum or large "poor house," the mental faculties are about gone, a condition of dementia seems to be the true term to express her condition.

Prognosis.

When taken in its earlier stages and properly treated many cases recover. When fully developed the disease renders the case hopeless.

Treatment.

In the treatment of cases of this kind much tact and delicacy is required, as well as firm principles. The patient should at once engage in some manual labor to the full extent of her strength, and this must be continued. *Canthar.* 30^{x} should be given, *Camph.* or *Kali bro.*, *Platinum*, *Picric ac.*, or *Veratrum alb.*, given low, are also efficient remedies. Allow no beaux company to be received, recommend a cold bath daily. Let the patient's diet be very plain and non-stimulating. Let no novels be read, and the occupation of the mind should be secured by the reading of works upon geology, or by the study of mathematics. After a year of this treatment, entrance into society may be allowed, and if a suitable matrimonial alliance can be consummated, sanction it.

Cauterization of the clitoris is a barbarous, and so far as I can learn, a useless, practice in these cases. Clitoridectomy or amputation of the clitoris has also been practiced, and been found unavailing, and is to-day entirely abandoned.

Atrophy of the Uterus, and Hyper-involution.

The uterus may be smaller than normal from infancy, which is termed congenital atrophy, or it may become atrophied after the delivery of a child, which is termed hyper-involution.

The condition of atrophy of the organ after the climacteric period is passed is normal. The girl affected with congenital atrophy of the uterus or ovaries will show less of sexuality in other ways; the breasts are found rudimentary, the hair upon the mons veneris is small in amount, resembling a girl of fourteen, when she has attained to twenty-five or thirty years of age. Sexual passion is feeble or entirely absent. There is usually an absence of menstruation; or, if present, it is scant and irregular. Mental

disturbances frequently accompany this condition, especially a want of mental capacity is manifest.

Mr. Walter Whitehead* relates a remarkable case of hyper-involution, after confinement, going on to the extent of causing entire absorption of the organ. She became quite indifferent to sexual intercourse, and no examination could detect any uterus remaining.

Etiology and Pathological Anatomy.

One cause of the congenital atrophy of the uterus may be found in some instances in the near blood relation of father and mother. Other causes are the tuberculous or scrofulous diathesis, chlorosis, etc.; but in some instances the cause is obscure, from the fact that the development of other parts of the body, and the health, appear good. In these cases the walls of the uterus and cervix are thin and flabby, appearing to indicate a want of normal amount of muscular fibre. Ossification of the arteries may cause atrophy of the uterus.

Symptoms.

Absent or scant and irregular menstruation; *want of energy; childish appearance generally*, in cases where the disease is congenital.

Diagnosis.

The diagnosis is to be made by means of conjoined manipulation, one finger of the left hand in the vagina pressing against the os uteri, and the right hand pressing down upon the fundus through the abdominal walls; or we may pass the uterine sound, when we will find that the flabby condition of the organ present is in striking contrast to its normal stiff and firm feel; and we find that its length is much less than natural.

* Brit. Med. Jour., Oct., 1872.

Treatment.

The scrofulous or tuberculous patient should be given *Phytolac. dec.*, *Calc.*, *Chi.*, *Arsen.*, etc., according to their homœopathic indications. The chlorotic case demands *Merc. cor.*, *Ars. iod.*, *Ferrum*, *Ignatia*, etc., ordinarily. Electricity is one of the most useful agents, as I have proven in many instances. Let the positive pole be attached to the uterine electrode when introduced into the uterus, and apply the negative to the spine, using a very mild primary current for about ten minutes, once in three days. The cool hip bath is also a useful adjuvant. Use a liberal farinaceous diet, with free exercise in the open air.

ABSENCE OF THE UTERUS—MALFORMATIONS OF THE UTERUS.

Cases of the entire absence of the uterus in women are exceedingly rare. The organ occasionally exists in a rudimentary state, having no cavity, and being of very small size. Malformations of the uterus are not so uncommon, though sufficiently so as to be of considerable interest. A septum existing in the organ, dividing it into two about equal parts, is perhaps the most frequent malformation. It is a condition frequently not recognized, as impregnation may take place on one side, and the gestation and delivery may go on normally; menstruation may go on from the opposite side; and this condition may account for those anomalous cases where menstruation continues in spite of pregnancy. Conception may take place on the opposite side from which gestation is already going on. (See Fig. No. 72.)

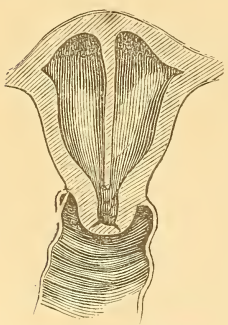


FIG. NO. 72.—DOUBLE UTERUS.

The septum represented in the cut is not always continuous down to the os; still, if only extending down to the internal part of the cervical canal, it makes a double uterus

(termed *uterus bilocularis*), just as much as if continued down to the external part of the canal. Sometimes there exists a double cervical canal and a single uterine cavity. (See Fig. No. 73, representing the case of Mrs. T., of Cincinnati.) This lady has never been pregnant, and has been troubled with excessive uterine hemorrhage, for which she consulted me. I found a number of mucous polypi situated in the cervix, and cured her of these tumors; some months after which, the patient, desiring offspring, again consulted me regarding her sterility. In attempting to examine the uterine cavity thoroughly, I found the cervix apparently ended in a pouch. As she menstruated, I was sure there was some communication with the interior of the body of the uterus by way of the cervical canal. I, therefore, persevered in my examination with the sound, after dilating the canal with sponge tents. I now discovered a septum in the cervical canal. By passing the sound into the smaller opening in the os I succeeded in directing it into the cavity of the uterus. I found, however, a constriction at the internal os. This I also dilated with a tent.

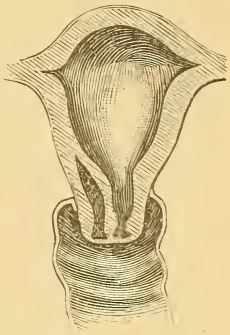


FIG. NO. 73. — DOUBLE CERVIX UTERI.

If the sterility continues it will be advisable to divide the septum with scissors, that the semen may more readily gain access to the uterine cavity. This case suggests the possibility that a septum in the cervical canal may be a cause of sterility when the septum leaves one side of the canal to end in a pouch. This condition may make the introduction of the sound into the uterine cavity an apparent impossibility.

ANÆSTHETICS.

Anæsthetics are a great boon to suffering humanity. They have taken from surgical operations more than half their terrors. Anæsthetics may be used locally to produce

insensibility of a part of the body, which is done by a spray usually, and is most useful to the surgeon in general practice. In gynæcological examinations or operations, general anæsthesia is demanded. This is accomplished by inhalations, and we prefer pure *Chloroform*, or a mixture of one part of *Sulph. Ether* to two parts of pure *Chloroform*.

The important points in the safe administration of anæsthetics consist in securing a partial inhalation of atmospheric air at the same time, and in having our patient in the reclining posture, with the head about as low as the body. Accidents from the use of anæsthetics have been mostly in those cases where the patient has been allowed to sit or semi-recline.

Anæsthetics should only be given by assistants of experience and judgment. The operator should not have his mind distracted by the care of the patient in this respect. We should also always have at hand a bottle of *Spts. Ammonia* and *Nit. Amyle* to revive the patient in case respiration ceases, and there is danger of dissolution. I will not go into the history of anæsthetics, but will simply suggest some precautions as to their use, and recommend them when used with care and discretion. The question frequently arises, whether or not they may be used in cases of weak lungs or with those who have heart disease. On general principles, we say no; still some palpitation of the heart in women who have uterine disease, does not preclude their use, as this palpitation is usually the result of sympathetic nerve action.

In cases where a severe operation is imperatively demanded in a lady suffering with some weakness of the lungs or heart, anæsthetics may be used in moderation and with special care. In cases of confirmed phthisis or severe valvular lesions of the heart, both the giving of the anæsthetic and the operation may usually be dispensed with, as life must soon ebb away at best, and it is useless to place the patient's life in imminent peril from an operation under such circumstances.

CHAPTER LXX.

HYSTERIA.

Hysteria is the term applied to the manifestation of a class of symptoms peculiar in themselves, but varied in character. Hysteria is not a disease in itself, but may be manifested in connection with a variety of diseases, notably those of a uterine or ovarian character; and hence hysteria is peculiar to women, though men are liable to nervous symptoms, in part simulating those called hysterical in the female. Conditions indicating a sort of trance in the male have been termed hysteria by some old authors, but they were evidently cases which were malingering, as it is called (that is, pretending to disease which was not present). Doubtless in some women, as well as in men, there is malingering, and they frequently may manifest symptoms which, taken in themselves would be alarming, but when taken in connection with the hysterical symptoms in the case, they sink into insignificance,

Hysteria is most common in women during the time that ovulation is going on, though some manifestations have been noted in young girls and in old women. It is aggravated, if not most frequently induced, at the menstrual epoch. It may, however, be developed during the intervening period, or it may come on during the period of gestation or nursing.

Hysteria has been considered by some simply a pretense to disease, a malingering, for the purpose of exciting sympathy and attention. Now, while some women may be guilty of malingering to deceive and obtain sympathy where they are suffering from no disease worse than laziness, it is a great cruelty to accuse all women who show nervous, change-

able, spasmodic symptoms (called hysterical) of being simply pretending.

In many cases the suffering of these patients is intense from disease, and they are as unable to control these manifestations as they would be the agonies of labor. But very few can do it. We therefore bespeak for this class of patients sympathy and kindness, often mingled with firmness, it is true; still let firmness be mingled with gentleness, at all times, with these patients.

Etiology.

The cause of hysterical manifestations lies primarily in the irritable and weak condition of the nervous system. This may be hereditary or acquired by mental or physical labor in undue amount, by dissipation, late hours, loss of sleep, stimulating diet (to the neglect of that which is substantial, plain, and nourishing). Disorders of menstruation, frequent childbearing, mental shocks, etc., may also induce this irritable, weak condition of the nervous system. These causes may be termed predisposing.

Direct causes are to be found in displacements of or inflammation in the uterus or ovaries; dysmenorrhœa, excessive or entire want of sexual congress; indigestion, causing gastralgia or flatulency, constipation; worms, vaginitis, vaginismus, dyspareunia, pruritus vulvæ, etc. The enlargement of the uterus in gestation, irritation of this organ from sympathetic irritation of the breasts in nursing, disagreeable home associations, sudden colds causing amenorrhœa, etc., may develop hysteria.

I believe all these causes, and perhaps many more, tend to produce hysteria in those patients who have a high nervous organization, and who are debilitated, especially those poorly nourished and of weakly constitution. There is in some an appearance of plethora and vigorous health. In these cases there is a want of proper balance of nerve strength, owing to some of the enumerated direct causes. A

highly excitable sexual organization predisposes to hysteria, and it is seldom manifested in women sexually torpid.

Diagnosis and Symptoms.

The symptoms of hysteria are extremely various. In the first place we note a perverted judgment, and an extremely vacillating mind. They decide this way now and very soon reverse their opinion, laugh immoderately at trifling things and cry at mere nothing, stop sobbing and laugh at their own foolishness, and in a few moments weep again. At these times they often complain of a choking sensation in the throat, the "Globus Hystericus" as it is called. They cry out they are choking, and laugh and cry again. This class of symptoms are most common in the more chronic cases.

In recent cases pain in the abdomen is often complained of, especially where there is indigestion and flatulency, dysmenorrhœa, constipation, or pregnancy; and pain in the pelvis in cases of displacement of the uterus, or inflammation of the uterus or ovaries. The patient in these cases sometimes falls down unconscious, froths at the mouth, tears her hair or clothing, bites her tongue, etc.; every muscle is rigid in spasmodic contraction, *opisthotonos* being common. The jaws are often spasmodically closed, as in *tetanus*. The patient rolls about irrespective of the injury she may do herself. Semi-consciousness returns and lasts a few moments, and again an active convulsion sets in. These convulsions may come on in those cases which ordinarily show the milder symptoms, or the manifestations may be uniformly violent. These symptoms are likely to cause grave apprehensions in the minds of her friends, and the physician should be quick to detect their nature, in order to allay their fears.

In those women hysterically inclined or predisposed, the occurrence of almost any disease, or an extraordinary amount

of fatigue, may develop such severe symptoms as to mislead the physician, unless he is aware of the patient's peculiarity in this regard.

Hysterical women are prone to magnify every slight ailment which they have. They, perhaps, do suffer more than others, because of the acute sensitiveness of their nerves.

Hysterical Rage or Mania.—Raving and paroxysms of anger followed by sorrow, remorse, weeping, and self-condemnation, is a symptom in some cases. They may, however, laugh in a few moments, and again go into a causeless rage.

Treatment.

In violent cases, the first thing to do is to see to it that the patient does herself or others no harm. Physical restraint is often absolutely necessary. A thin piece of a large cork placed between the teeth and then binding the jaws firmly, serves to keep the patient from biting her tongue, and also will enable us to administer remedies, which otherwise we might be unable to do. See that the feet are warm, the head cool, etc. Select remedies according to the condition of the patient, as well as the symptoms present at the time. *Cimicif. Rac.*, is an excellent remedy when we have the history of the patient, showing ovarian pain. *Puls.* when there is *amenorrhœa* from cold, with tenderness in iliac region. *Aconite, Gelsem., or Arsen.*, may be indicated by the pulse and the temperature of the skin, etc.

Ignatia is, perhaps, our best remedy, so far as the purely spasmodic symptoms are concerned. When there is any tendency to conjestion of the lungs, *Verat. viride*, *Gelsem.*, or *Bryonia*, may be indicated. *Hyosc.* is indicated if there is a tendency to immodesty manifested.

Nux and *Colocynthis*, in alternation, are indicated in flatulency, and especially when pain centres around the navel. When the flatus is evidently in the colon, an enema of warm water, followed in a few minutes by one of quite cool, is very

useful to assist in relieving the distended bowel, which is not only painful in itself, but may cause pain in the ovary or uterus from pressure, particularly affecting these organs when they are inflamed.

Hysteria is often unsatisfactorily treated, from the fact that patients will often neglect treatment in the intervals of the attacks, when they are of recent origin, and sometimes when chronic, on account of the mildness of the symptoms and the mental weakness accompanying this condition, which makes the patient a poor judge of her own case and her needs.

Kali bro. is indicated in those women who have excessive sexual passion, notably young widows.

In case hysteria is manifested during gestation either *Bell.*, *Hyosc.*, *Ignatia*, *Aconite*, *Col.*, *Nux*, *Puls.*, or *Secale*, are homœopathically indicated, together with rest and a very light diet.

When the violence of the symptoms has subsided the physician does well to make a physical examination of the pelvic organs, as well as the spinal cord and the system generally, in order to discover the predisposing and exciting causes. If they can be found they should, of course, be treated upon the general principles laid down in connection with their occurrence in other cases, and may be found under their appropriate heads. It is unnecessary to recapitulate here the proper treatment in cases of uterine or ovarian diseases.

It is, however, of the greatest importance that these diseases be treated if we would cure the hysteria. It is true, a woman may have a single attack of hysteria owing to violent emotions of the mind at or about the time of the menstrual period, and not have a recurrence of it, though she receive no further treatment. But these cases are exceptional, and do not invalidate the general rule of the liability and probability of its recurrence in the great majority of cases when left to themselves.

Special Indications for Remedies.

Aconite—Hysterical condition, characterized with fear as a prominent symptom where the disease developed from fright, or where the prominent symptom is fear, together with tenderness of the uterus or ovaries; the wiry pulse; dizziness on rising, etc.

Asafœtida—Hysterical condition, with burning in the œsophagus; sensation of a lump in the throat, termed *globus hystericus*.

Aurum, is indicated in suicidal hysteria.

Bell., is indicated in hysteria when there is a flushed face; redness of the eyes; throbbing headache over the eyes.

Bry., when there are sharp pains in the limbs or chest, worse on motion, with hysterical spasms occurring only at the menstrual period.

Cal. Carb., is indicated in the leuco-phlegmatic temperament where hysteria is manifested, where leucorrhœa is a complication; patient is very sensitive to cold, etc.

Chamomilla, in hysteria, where a bad temper is a prominent symptom as a complication.

Col., is indicated where the hysteria is complicated with cutting pains around the navel; gas in the intestines, etc.

Gelsem., is indicated in hysteria, where there is also an intermittent fever present in the case.

Hyosc., in hysteria, with tendency to immodesty; tears come to the eyes without cause; hysterical spasms, etc.

Ignatia, hysteria, with silent morose condition; angry mood; comes out of her spasm with deep sighing.

Ipecac, where vomiting precedes or follows the hysterical spasm.

Nux Vom., in hysteria with constipation, indigestion, loss of appetite, etc., especially in women who have been drinking much wine or other liquor.

Phos., in tall, slender women with hysteria, having stool

which is dry, hard, and narrow; much gas on the stomach, which is raised after eating.

Puls., hysteria at the menstrual periods, with partial amenorrhœa; pain in the ovaries; indigestion; headache, etc.

Secale, in high attenuation is indicated in hysteria with threatened abortion.

Verat. Viride, hysteria, with tenderness of the spinal cord, with profuse perspiration.

INDEX.

PAGE.

ABORTION, ... 421, 675
" etiology, ... 422
" symptoms, ... 423
" convulsions in, ... 424
" diagnosis, ... 425
" prognosis, ... 426
" treatment, ... 426
" remedies in threatened, . . 430
" a cause of uterine diseases, 18
Abdominal dropsy, ... 739
" supporters, . . 156, 557, 558
" parietes failure of to adhere after ovariotomy, . 334
" gestation, ... 642
Abnormal conditions, tolerance of, . . 479
" menstruation, 34, 56, 242, 498
Abscess of the breast, ... 692, 695
" " " symptoms of, ... 696
" " " etiology of, ... 697
" " " treatment of, ... 697
Abscess of the labia, ... 406, 410
" " " etiology of, ... 411
" " " diagnosis of, ... 411
" " " treatment of, ... 412
Abscess in inguinal glands, ... 652
" " abdominal muscles after ovariotomy, ... 335
" " the uterus, ... 241
Abscess, pelvic, 69, 110, 113, 125, 295, 718
" etiology, ... 115
" symptoms, ... 116
" prognosis, ... 119
" treatment, ... 122, 125
Absorption of the uterus, ... 753

PAGE.

Absence of the uterus, . 750, 754, op. 723
" " " ovaries, ... 265, 754
Ablation of the uterus, ... 727
" " " cases requiring, ... 727
" " " experience in, ... 727
Acute inflammation of the uterus, . . 77
" ovaritis, ... 265
Adhesions in the vagina, ... 186, 190
" " labia, ... 186, 190
" " " prevention of, . 195
Adenoid tumors of the breast, . . 698, 699
Advancing senile atrophy of female genitalia, ... 504
Albuminuria, ... 662
Alveolar cancer of the breast, ... 701
Alimentation, rectal, ... 683
Amenorrhœa, ... 31, 32, 223, 242, 499
" symptoms of, ... 32
" etiology of, ... 34
" treatment of, ... 36
" caused from psychical influences, ... 35
" simulating phthisis pulmonalis 36
" causing cough, . 32, 26, 242
" exceptional cases of, 32, 26
" " " 242
Amputation of the breast, ... 692
" " " cervix uteri, ... 169
" " " inverted uterus, ... 576
" " " clitoris, ... 752
Anæmia, ... 350, 358
Anomalous cases, ... 577
Antiseptic treatment, ... 135

PAGE.
Antiseptic spray apparatus, . . Plate XI.
Anæsthetics, ... 368, 750, 755
" in diagnosis, ... 28
Ante-version of the uterus, . . 563, 598
" " " etiology of, 599
" " diagnosis of, 590
" " " treatment of, 600
Ante-flexion of the uterus, . . . 563, 598
" " " etiology, . . 599
" " " diagnosis, . 599
" " " treatment, . 600
Applicator, uterine, ... 715
Areolar hyperplasia of the uterus, 87, 709
" " " " 711
" " " course and termination, 100
" " " predisposing causes, . . 101
" " " symptoms, ... 102
" " " prognosis, ... 105
" " " treatment, ... 106
Artificial vesico-vaginal fistula for the relief of chronic cystitis, ... 458
Aspirators, ... Plates IX and X.
Aspirator, Tiemann & Co.'s, ... 153
" Dieulafoy's, ... 154
Ascites in Women, ... 739
" " " diagnosis, ... 740
" " " treatment, ... 742
" " " tapping in, ... 743
" complicating ovarian cystoma, 299
Attenuation of remedies, ... 137
Atrophy of the uterus, . . . 255, 259, 750
Atmospheric pressure, ... 367, 556
Atresia of the cervix uteri in young girls, ... 505
Atresia of the cervix uteri in old women, ... 504
Atresia of the hymen, ... 197
" " cervix uteri, ... 502
" " vagina, ... 503
" " uterus, ... 502
" " cervix, artificial, ... 532
" " uterus, artificial, ... 532

BARRENNESS, ... 249
" diagnosis, ... 255
" treatment, ... 257
Bathing, ... 744
Battery, combination, ... 38
" Faradic, ... 160, 714
Babcock's Supporter, 595, and Plate VII.

PAGE.
Bantam diet, ... 700
Bed swing, ... 338
Bearing-down pains, ... 220
Bilocular uterus, ... 755
Bigelow's apparatus for washing out the bladder, ... 466
Blind vaginal fistula, ... 537
Bloody tumors of the tubes, ... 439
Bladder, inflammation of, ... 445
" stone in, ... 462
" fissures of the neck of, . . . 445
Bozeman's tenaculum, . . . Plate XIII.
" curved scissors, ... 523
" scalpel, ... 636
Broken breast, ... 695, 696
Breast, abscess of, ... 692, 695, 697
" inflammation of, ... 691
" cancer of, ... 692, 700
" malignant tumors of, ... 692
" hypertrophy of, ... 697, 698
" tumors of, ... 697
" induration of, ... 697
" amputation of, ... 692, 702
" " operation for, . . 703
" fatty tumors of, ... 700
" milk tumors of, ... 698
" adenoid tumors of, ... 699
" malignant tumors of, ... 700
" sero-cystic tumors of, ... 699
" hydatid tumors of, ... 699
" non-malignant tumors of, 697, 698
" gangrene of, ... 697
Broad ligament, cysts of, ... 437
" " treatment, ... 438
Bulbs of the vestibule, rupture of, . . 490

CATARRH, acute, of vagina, 186, 219, 240
" " " 380
" chronic, " 188
" of the uterus, . . . 211, 240, 380
" " tubes, ... 439
" " cervix, ... 211
Caustics, warning against, ... 234
" a cause of cellulitis, ... 115
Cancroid tumors of the fundus uteri, . 293
Cauliflower excrescence, ... 400
Cæsarian section, ... 644
Caruncles of the urethra, irritable, . . 445
Catheter, self-retaining, . . . Plate XIII.
" reversible, ... 457, 466

PAGE.
Cancer of the uterus, ... 167, 400
" " breast, ... 700
" " tubes, ... 439
" " uterus, scirrhous, . 167, 400
" " " encephaloid, . . 400
" " breast, colloid, ... 700
" " " scirrhous, . . . 700
" " " melanoid, . . . 700
" " " gelatiniform, . . 701
" " " alveolar, . . . 701
" " ovary, ... 387
Cancerous ulceration of vagina, . . . 629
" cachexia, ... 24, 630, 701
Cachexia, cancerous, ... 24, 630, 701
" tuberculous, ... 24
Catamenia, ... 31
Carcinoma of the ovaries, ... 300
" " uterus, ... 400
" " liver, ... 287
Calculi in the bladder, ... 462
" " ureters, ... 462, 469
" phosphatic, ... 462
" uric acid, ... 462
" causes of, ... 462
" one cause of vesico-vaginal fistula in some cases, . . . 463
Causes of female diseases, ... 17
Caution against uterine injections, . . 216
Cervicitis, ... 211
Cervical metritis, ... 79
" hyperplasia, ... 103
" endo-metritis, ... 218
Cervix uteri, incisions of, ... 596
" " indurations of, ... 162
" " hypertrophy of, ... 162
" " lacerations of, . 115, 539, 550
" " " a cause of hypertrophy, 166
" " " " areolar hyperplasia, 102
" " artificial atresia of, . . . 532
" " cancerous diseases of, . . 400
" " stenosis of, ... 452
" " atresia of, ... 502
" " tumors of, ... 343
" " amputation of, ... 169
Cellulitis, pelvic, ... 110, 113
" description of, ... 113
" symptoms of, ... 116
" chronic, ... 117
" prognosis of, ... 119
" treatment of, ... 122

PAGE.
Chronic inflammation of female genitalia, ... 62, 70, 87
" cellulitis, ... 117
" cystitis, ... 458
" parenchymatous metritis, . . 87
Chancre, Hunterian, ... 657
" soft, ... 657
" hard, ... 657
Chapter on Instruments, ... 142
Chancroid sore, ... 657
Child-bed fever, ... 126
Chair for examinations, ... 22
Chlorosis, ... 32, 754
Chills caused from retro-version of the uterus, ... 25
Change of life, ... 494
Civiale's lithotriptor, ... Plate VIII.
Clitoris, amputation of, ... 752
" elephantiasis of, ... 723
" hypertrophy of, ... 723
" cases of, ... 724
Clitoridectomy, ... 752
Clamp for pedicle in ovariotomy, 160, and Plate XV.
" " Thomas', " "
" " Spencer Wells', " "
" " Dawson's improved, . . 321
Climacteric period, ... 494
" " treatment of diseases of, . 500
Conjoined manipulation, ... 28
Cold vaginal injections injurious, 701, 746
Colostrum, ... 694, 695
Combination battery, ... 38
Complications of metritis, ... 82
Coccygodynia, ... 396
Color of the discharge in endo-metritis, 220
" " " endo-cervicitis, 212
Cover for use in examinations, . . . 30
Colpeurynter, ... 45, 350, 364
Colpeurysis, ... 45
Corporeal hyperplasia of the uterus, . 104
Colic, uterine, ... 586
Copulation, injurious effects of, . . . 83
Convulsions in the puerperal state from albuminuria, ... 662
" in hysteria, ... 759
Crabs, ... 408
Cutler's forceps and suture cutter, . . 535
Cut of fistula, ... 524
Curved scissors, ... 530

PAGE.
Curved scissors, long, ... 146
Cystitis, ... 455
" symptoms, ... 455
" etiology, ... 455
" treatment, ... 457
Cystocele, ... 389, 391
" . . . . . Plate XVI.
Cystoma ovarii, ... 298
Cystin calculi, ... 462
Cysticercus, ... 356
Cysts of the ovary, ... 280
" " broad ligament, . . 301, 437
" vaginal, ... 406, 414
" " pathol. anatomy, . . . 414
" " etiology, ... 414
" " diagnosis, ... 415
" " treatment, ... 415
" of the uterus, ... 356
" " ovary, rupture of, ... 310
" " " permanent opening into, 309

DAWSON'S improved Sims' speculum, Plate III.
Dead fœtus in utero, ... 29
Denidation, ... 49
Decidua (nidal), ... 49
Dermoid cysts, ... 267, 277, 278
Diet, Bantam system of, ... 700
Dilutions, homœopathic, ... 138
Diphtheritic inflammation of the vagina, ... 186, 194
Diathesis seu Infectio purulenta, . . 136
" hemorrhagic, ... 203, 493
Diagnosis, general, ... 21
" " of female diseases, . . 21
" of adhesions in ovarian tumors, 296
" differential, " " " 283
" of inversion of the uterus, . . . 567
" difficulties of in inversion of the uterus, ... 568
Displacements of the tubes, . . 439, 443
" " ovaries, ... 385
" of the uterus, . . 552, 663
" " " symptoms, 561
" " " etiology, . 561
" " " treatment, 562
Diseases, female, causes of, ... 17
Dilator (Emmet's sponge tent), Plate IX.
" Palmer's uterine, ... 146
Discharge, color of in endo-metritis, . 220

PAGE.
Discharge, color of in endo-cervicitis, 212
Diseases of pregnancy, ... 660
" of the ovaries, ... 265
" " uterus, sympathetic, 472, 487
" " tubes, ... 439
" " urethra, ... 445
" " " treatment of, . . 448
" sympathetic, ... 472
" of the breasts, ... 692
Double tenaculum forceps, ... 323
" uterus, ... 754
" cervix uteri, ... 755
Drainage tube, ... 333
Dropsy in women, ... 739
" " " diagnosis, ... 740
" " " treatment, ... 742
" of the Fallopian tubes, . . . 301
Dyspareunia, ... 162, 173
" symptoms, ... 173
" etiology, ... 175
" treatment, ... 176
Dysuria, ... 646
" treatment of, ... 648
Dysmenorrhœa, ... 46
" diagnosis, ... 47
" prognosis, ... 50
" treatment, ... 50

EATON'S needle-holder, . . 145, 521, 527
" " " Fig. of, Plate VI.
Eaton's wire holder and twister, 146, 522
" " " " Fig. of, Plate VI.
Eaton's improved London supporter, . . . 158, 665. See Plate XII. Also uterine displacements.
Ecraseur, ... 369
Edwards' ecraseur, ... 369
Effects of conception in cases of endo-metritis, ... 223
Effects of uterine disease, ... 17
Elevators, uterine, ... 159
Elevator, Sims', ... 159
" Elliott's, ... 159
Elevators, uterine, ... See Plate XVI.
Elevation of the uterus, ... 563, 577
" " " Plate XXVIII.
Electrical batteries, . . 38, 159, 160, 714
Electrolysis needles, ... 160, 370
" in ovarian cystoma, . . 309
Electrical baths, ... 745

PAGE.
Electricity, ... 479
" in treatment of atrophy of uterus, . . . 754
" " " amenorrhœa, 37, 479
" " " sub-involution, . 714
" " " uterine fibroids, . 349
Elongation of cervix uteri, ... 164
Elytroplasty, ... 536
Elephantiasis of the clitoris, ... 723
" " labia majora, ... 723
" " " minora, ... 723
" " clitoris, . . Plate XXIX.
" " labia majora, Plate XXX.
" " " minora, Plate XXXI.
Elytrorrhaphy, ... 392, 393, 617, 623
Elasticity of the connective tissue in the pelvis, . . . 367
" " uterine tissue, 163, 390
Emmet's sponge dilator, ... 151
" " " . . . Plate IX.
" curved scissors, ... 726
" sponge tent applicator, . 366, 597
Endo-metritis, ... 218, 253
" " effects of, ... 225
Endo-cervicitis, ... 211, 253
Endometrium, vegetations of, 352, 353, 355
" granulations of, ... 353
" inflammation of, . 218, 253
Enucleation of submucous fibroids, 347, 348
Enucleator, Sims' (three figures), . . 347
Encephaloid cancer of the breast, . . 701
Enterocele, ... 389
Endoscope, urethral, ... 446
Enlargement of the clitoris, ... 723
" " labia majora, . . 723
" " " minora, . . 723
Enuresis, ... 647, 648
Episiorrhaphy, ... 537
Ephemera, ... 695
Ergotine injections in uterine fibroids, 348
Extirpation of the breast, ... 702
Exsection " " 702
Extirpation of the uterus, . . . 346, 727
Examination table, ... 319
" chair, ... 22
" rectal, ... 30
Extra-uterine pregnancy, . . . 286, 642
Excoriated nipples, ... 692
Examination of virgins, ... 24
Excessive venery a cause of sterility, 255

PAGE.
FALSE pregnancy, ... 375, 498
" peritonitis, ... 131
Fallopian tubes, diseases of, ... 439
" " cancer of, ... 443
" " fibroma of, ... 443
" " displacements of, . . 443
" " dropsy of, . . . 439, 301
Facies ovariana, ... 283, 285
Faradic battery, ... 38, 160, 714
Femoral hernia, ... 404
Fever, hidrotid, ... 130
" puerperal, ... 126
" child-bed, ... 136
" milk, ... 694
Female genitalia, ... Plates I and II.
" " adv. senile atrophy of, 504
Fissures of the vagina, ... 630
" " nipple, ... 692
" " anus, ... 260
" " neck of the bladder, . 445
Fibroids, uterine, ... 292, 302, 342
" " diagnosis from pregnancy, 345
" " varieties of, ... 343
" " symptoms of, ... 343
" " prognosis, ... 345
" " treatment, ... 346
" " " by sponge tents, 349
" " subserous, ... 343
" " " treatment of, . 347
" " submucous, ... 343
" " treatment by enucleation, 347
" " " by other operations, 348
" " pedunculated, ... 343
" of the cervix uteri, ... 343
" of the Fallopian tubes, . . . 439
Fibro-cysts of the uterus, . . . 302, 346
Fibroids of the vagina, ... 406, 414
Fibroma, uterine, ... 302
" vaginal, ... 406, 417
Fibrous tumors of the uterus, . . 342, 352
" " ovary, ... 300
" " cervix, . . 342, 352
" " " vagina, . . 406, 417
Fitch's supporter, ... 158
Fistulæ, vaginal, ... 511
" " Sims' operation for, . 534
" " Simon's " " . 535
" in ano, ... 511
" " treatment, ... 533
" vesico-vaginal, ... 511

PAGE.
Fistulæ, vesico-vaginal, treatment, . 516,
" " " " 520, 523
" recto-vaginal, ... 511
" " treatment, ... 528
" vesico-cervical, ... 511
" " treatment, ... 516
" urethro-vaginal, ... 511
" " treatment, ... 516, 526
" intestino-vaginal, ... 511
" " treatment, ... 532
" recto-vesical, ... 511
" " treatment, ... 532
" ureto-vaginal, ... 511, 532
" " etiology, ... 512
" " diagnosis, ... 515
" " treatment, ... 532
Forceps, vulsellum, ... Plate X.
" lithotomy, ... Plate VII.
" uterine dressing, . Plate V, 184
" Nelaton's tumor, . . . Plate XI.
Front view of uterine organs, . . Plate I.

GANGRENE of the breast, ... 697
" " ovary, ... 268
Gastralgia, ... 748
Galactocele, ... 695
Gelatiniform cancer, ... 701
General diagnosis, ... 21
Gentleness in examination, ... 23
Genitalia, inflammation of in female, 62
Gestation, abdominal, ... 286, 642
" " diagnosis, . . . 643
" " prognosis, . . . 644
" " treatment, . . . 644
" interstitial, ... 643
" " diagnosis, . . . 643
" " prognosis, . . . 644
" " treatment, . . . 644
" tubal, ... 440
" extra-uterine, ... 286
Glandula coccygea, ... 398
Globus hystericus, ... 73, 759
Gonorrhœa in women, ... 650, 62
" " " etiology, ... 650
" " " symptoms, ... 651
" " " buboes in, ... 653
" " " " treatment, 653
" " young girls, ... 653
" " " treatment, ... 654
Granulations of the cervix uteri, . . 353

PAGE.
HÆMATOMETRA, . . 198, 345, 502, 505
" simulating ovarian cystoma, . 294
Hæmatocele, recto-vaginal, ... 287
" recto-uterine, ... 718
" pelvic, ... 716
" " etiology, ... 716
" " symptoms, ... 717
" " diagnosis, ... 719
" " prognosis, ... 720
" " treatment, ... 721
" pudendal, ... 490
Heartburn, ... 748
Hernia in women, ... 404
" of the ovary, ... 385
" " " treatment of, . . . 388
" " " crural, ... 386
" " " ischiatic, ... 386
" " " vaginal, ... 386
" " " uterus, ... 385
" femoral, ... 404
" inguino-labial, ... 404
" inguinal, ... 385, 404
" labial, ... 385, 404, 491
" vaginal, ... 404
Hemorrhage, ... 201, 222, 350
" uterine, . . 201, 222, 254, 500
" " etiology, ... 202
" " diagnosis, ... 205
" " treatment, ... 205
" " sponge tents in, . 349
" pudendal, ... 490
" after ovariotomy, ... 331
" " " treatment of, 332
Hemorrhagic diathesis, ... 203, 493
Hemiplegia, ... 484
Hermaphrodites, ... 723
" . . . . . Plate XXIX.
Hemorrhoids, ... 260
Hidrosis, ... 130
Hip baths, ... 745
Hidrotid fever, ... 130
" " varieties of, ... 130
Homœopathic remedies, ... 137
" " attenuations of, . 137
" " trituration of, . . 138
" " dilution of, . . . 138
" " fluxion process, . 138
" " action of, ... 139
How to make a diagnosis, ... 21
Hunterian chancre, ... 657

PAGE.
Hunterian chancre, treatment of, . . 659
Hydrometra, ... 406
Hydatids of the breast, ... 699
" " uterus, 352, 353, 356, 372
" " " treatment of, . 372
Hymen, imperforate, ... 26, 197
" atresia of, ... 197
Hyperplasia, areolar, of uterus, . . . 87
" cervical, " " . . . 103
" corporeal," " . . . 104
Hydrosalpinx, ... 301, 439
Hyperæsthesia, ... 480
" etiology, ... 480
" pathology, ... 481
" diagnosis, ... 482
" prognosis, ... 483
Hydrops, folliculi, ... 277
" folliculorum, ... 298
" tubal, ... 439
Hydrocele in women, ... 404
" " " treatment, . . . 405
Hysterotomy, ... 727
Hysterotomes, ... 145, 453
" . . . . . Plate V.
Hysteralgia, ... 736
Hyper-involution of the uterus, . 750, 752
Hypertrophy of the clitoris, . . . 223, 751
" " " Plate XXIX.
" " labia majora, . 723, 725
" " " " Plate XXXI.
" " " minora, . 723, 724
" " " " Plate XXX.
" " " treatment, 726
" " nymphæ, ... 724
" " " treatment, . 726
" " uterus, . . 162, 219, 710
" " cervix uteri, . . 162, 253
" " " " 169, 219
" " breast, ... 698
Hysteria, ... 757
Hysterical mania, ... 760
" spasms, ... 759
" convulsions, ... 759
" paralysis, ... 486
Hysterocele, ... 385

INTRODUCTION, ... 17
Imperforate hymen, ... 26, 197
Inversion of the uterus, ... 563
" " " etiology, . . . 565

PAGE.
Inversion of the uterus, diagnosis, . . 567
" " " treatment, . . 569
Inguinal hernia, ... 404
Inguino-labial hernia, ... 404
Intra-uterine stem, ... 593
Inverted uterus, ... 563
" " amputation of, ... 576
" " etiology, ... 565
" " diagnosis, ... 567
" " treatment, ... 569
" " errors in diagnosis, . . . 568
" " recent, ... 570
" " chronic, ... 571
" " " operations for, . . 572
" " " " White's method, 573
" " " " Barnes' " 575
" " " " Simpson's " 575
" " " " Thomas' " 575
" " " " Watts' " 575
" " spontaneous reduction, . 576
" " anomalous cases of, . . 577
Injections of iodine in ovarian cystoma, ... 304
" ergotine in uterine fibroids, 348
Infractus, ... 93
Indigestion, ... 487
Induration of the cervix, ... 162
" " " etiology, . . . 155
" " " pathology, . . 165
" " " diagnosis, . . . 166
" " " treatment, 167, 171
" " " local " 171
" " breast, ... 697
Inflammation of the female genitalia, 60
" " bladder, ... 455
" " vagina, ... 186
" " Fallopian tubes, . 439
" acute, of female genitalia, 62
" chronic, " " 62, 67
" sub-acute, ... 62, 64
" chronic sub-acute, . . 62, 70
" of the breast, ... 671
" " urethra, ... 445
" diphtheritic, of vagina, . 194
Intestino-vaginal fistula, ... 511
Instruments, chapter on, ... 142
Interstitial pregnancy, ... 643
" gestation, ... 643
Injections into the uterus, ... 171
" of wine, in ovarian cystoma, 308

PAGE.
Intra-uterine medication, ... 229, 713
Injury to the spine, causing urinary calculi, ... 462
Insanity, ... 688
" caused from uterine diseases, 479
Incisions of the cervical canal, . . . 596
Intestinal inhaustion, ... 684, 685
Inhaler, Lente's, ... 156
" " . . . . . Plate XI.
Iodine injections in ovarian cysts, . . 304
" " not painful, ... 309
Irritable urethral carunculæ, ... 445
" uterus, ... 93, 736
Ischuria, ... 646
" treatment, ... 648

KOLPOKLESIS, ... 537
Kent's nipple shield, ... 694

LATERAL displacements of the uterus, ... 563, 603
Lacteal tumor of breast, ... 698
Laceration of the perineum, . 629, 631, 635
" " " etiology, ... 630
" " " diagnosis, ... 632
" " " treatment, ... 633
" " " operation for cure of, 634
" " " time for operating, . . 639
" " " removal of sutures, . 640
" " urethra, ... 445, 449
" " cervix uteri, . . . 115, 539
" " " a cause of cellulitis, . 115
" " vagina, ... 629
" " " treatment, ... 630
" " cervix, etiology, ... 541
" " " diagnosis, ... 545
" " " treatment, ... 550
Labia, adhesions of, ... 186, 190
" hernia into, ... 404, 491
" tumors of, ... 726
" abscess of, ... 406
" " " etiology, ... 407
" " " diagnosis, ... 408
" " " treatment, ... 409
" hypertrophy of, ... 723
Leucorrhœa, ... 240, 670
" vicarious of menstruation, . 34
" color of discharge, ... 240
" diagnosis, ... 240
" treatment, ... 242

PAGE.
Leucorrhœa, remedies in, . . 243, 244, 246
" special indications for, . . 245
" " " 246, 247
Lente's inhaler, ... 156
" " . . . . . Plate XI.
Ligatures, ... 169, 346
Ligature cutter, ... 535
Lithotomy in women, ... 465, 467
Lithotrity " " 465
Lithectasy " " 465
Lithotriptor, ... Plate VIII.
Lithotomy forceps, ... Plate VIII.
Little's antiseptic spray apparatus, . 156
" " " " Plate XI.
Local anæsthesia, ... 756
London supporter, ... Plate XII.
" " Eaton's improved, 158, 665
" " " " Plate XII.
Long curved scissors, ... 146
" " trocar, ... 125
" " " uterine, ... 510
Luska's gland, ... 398

MAMMITIS, ... 695
Mastitis, ... 695
Mammary abscess, ... 695
Malformation of the uterus, . . 750, 754
Mania, puerperal, ... 688
" hysterical, ... 760
Malignant tumors of the breast, . . . 697
" " " " scirrhous, . . 700
" " " " encephaloid, 700
" " " " melanoid, . . 700
" " " " colloid, . . . 700
" " " " gelatiniform, 701
" " " " alveolar, . . 701
" " of the uterus, . 395, 400
" " " " scirrhous, . . 400
" " " " encephaloid, 400
" " of the breast, . . . 700
" " " " Fallop'n tubes, 439
Metrorrhagia, ... 41
Menorrhagia, ... 41, 222
" etiology, ... 42
" treatment, ... 43, 45
Metro-phlebitis, ... 126
" peritonitis, ... 126
Menstruation, ... 19, 31
" idiosyncrasies of, 19, 31, 32, 242
" vicarious, ... 34

PAGE.
Menstruation, time of cessation, . . . 494
" arrest of, ... 31, 223, 242
" suppression of, . . 31, 223, 242
" " symptoms, ... 32
" " etiology, ... 34
" " prognosis, ... 36
" " treatment, ... 36
" " caused from psychical influences, ... 35
" " simulating phthisis, . 36
" profuse, ... 41
" excessive, ... 41
" painful, ... 46
Method of making vaginal examinations, ... 21
Medicated suppositories, ... 229, 713
Metatithmenia, ... 719
Menopause, ... 496
Medicated baths, ... 745
Metritis, acute, ... 77
" " diagnosis, ... 78
" cervical, ... 79
" " treatment, ... 80
" complications of, ... 82
" tendency to dropsy in, . . . 82
" amaurosis caused from, . . 83
" sterility " " . . 83
" abortion " " . . 83
" menstrual derangements caused from, ... 84
" remedies in, ... 84
" general effects of, ... 83
" chronic parenchymatous, . . 87
Milk-leg, ... 705
" diagnosis, ... 706
" etiology, ... 707
" treatment, ... 708
Milk tumor of breast, ... 698
" fever, ... 694
" abscess, ... 695
" diet, ... 70
Mono-cysts of the ovary, ... 298
Morphia, hypodermic injection of, . . 81
" " " " objections to, 81
Moles in the uterus, ... 375
" " " etiology, ... 375
" " " deficiency of spermatozoa a cause of, ... 376
" " " diagnosis, ... 376
" " " prognosis, ... 376

PAGE.
Moles in the uterus, treatment, . . . 376
Mucous polypi of the uterus, ... 352
" patches, ... 655
Myoma of the tubes, ... 439

NEURALGIA of the uterus, ... 736
" ovaries (see Dysmenorrhœa), 46
Neuromata of the vulva, ... 739
Nelaton's tumor forceps, ... 365
" " " . . . Plate XI.
Neck of the bladder, fissures of, . . . 445
Nelson's tri-valve speculum, ... 143
" " " . . Plate IV.
Needle-holder, Eaton's, ... 145
" " " . . . . Plate VI.
" " Sims', ... 520
Needles, electrolysis, ... 160, 370
" " in ovarian cystoma, . 309
" Pease's, ... 148
" suture, ... Plate XIII.
" open-eyed, ... 326
Non-malignant tumors of the ovaries, 275
" " " " uterus, 352, 395
" " " " breast, 698, 699
Nipple shield (Kent's), ... 694
" excoriated, ... 692
" fissured, ... 692
" retracted, ... 693
Nidation, ... 46, 49
Nidal decidua, ... 49
Nonentities, ... 723
" or hermaphrodites, . . . 723
" " " Plate XXIX.
Normal position of the uterus, . . . 554
" " " " Plates I and II.
Non-malignant tumors of the breast, 697
" " " " fatty, ... 700
" " " " fibro-cystic, . . . 346
" " of the uterus, ... 352
" " " " fibroid, 292, 302, 342
" " " " subserous, . . . 343
" " " " submucous, . . . 343
" " of the labia, ... 726
" " of the ovary, ... 294
" " " " cystic, ... 294
" " " " fibro-cystic, . . . 294
" " " " fibroid, ... 300
" " of the Fallopian tubes, . . 443
Nott's depressor, ... 522
Nursing sore mouth, ... 747

PAGE.
Nymphomania, ... 724, 750
" . etiology, ... 750
" symptoms, ... 751
" diagnosis, ... 751
" treatment, ... 752
Nymphæ, hypertrophy of, ... 724

OBJECTIONS to abdominal supporters not tenable, ... 158
Objections to the ligature in the removal of uterine polypi, ... 367
Occlusion of the Fallopian tubes, . . 439
" " " " congenital, 442
Oligocysts of the ovary, ... 298
Open-eyed needle, ... 326
Opium habit, remarks on, ... 81
" " statistics of, ... 81
Operations for stone in the bladder, . 467
Operating table, ... 319, 703
Opisthotonos, ... 759
Os uteri, ulceration of, ... 179
" " " " treatment, . . . 185
" " virgin, ... 26
" " in old age, ... 27
" " after lacerations, ... 162
Ossification of the arteries a cause of atrophy of the uterus, ... 753
Ovaries, prolapse of, ... 417
" " " treatment, . . . 419
" displacements of, ... 385
" hernia of, ... 385
" " removal by operation, cases of, ... 388
" diseases of, ... 265
" malformation of, ... 265
" cancer of, ... 387
" carcinoma of, ... 300
" papilloma of, ... 395
" enchondroma of, ... 300
" osteoma of, ... 300
" fibroid tumors of, ... 300
" inflammation of, ... 265
" cystic tumors of, ... 298
" fibro-cystic tumors of, . . . 298
" oligocysts of, ... 298
" dermoid cysts of, ... 275
" gangrene of, ... 268
Ovaritis, ... 265
" chronic sub-acute, ... 266
" etiology, ... 268

PAGE.
Ovaritis, diagnosis, ... 268
" treatment, ... 269
Ovariocentesis, ... 310
Ovariocele, ... 389
Ovarian cyst, rupture of, ... 310
" " permanent opening into, 309
" Tumors, ... 275
" " classification of, ... 275
" " etiology, ... 276
" " symptoms, ... 281
" " differential diagnosis, ... 283
" " prognosis, ... 303
" " treatment, ... 303
" " diagnosis from cellulitis, . . . 288
" " " from enlarged liver, ... 287
" " " " fecal tumors, ... 287
" " " " retro-uterine hæmotocele, . 287
" " " " abdominal ascites, ... 290
" " " " hydatids of the omentum, . 291
" " " " cyst of the uterus, ... 294
" " " " dropsy of the amnion, . . 293
" " " " floating kidney, ... 292
" " " " pelvic abscess, ... 295
" " " " distended bladder, . . . 295
" " " " pregnancy, ... 285
" " " " extra-uterine pregnancy, . 286
" " " " uterine fibroids, ... 292
" " " " carcinoma of fundus uteri, . 292
" " " " hæmatometra, ... 294
" " " " cyst of the broad ligament, 301
" " " " hydrosalpinx, ... 301
" " " " cysts of mesenteric glands, . 302
" " " " fibro-cyst of the uterus, . . 302
" " " comparative differential, . . 296
" " " of adhesions of, ... 296
" " conditions mistaken for, . . . 289
" " varieties of, ... 275
" " causes of, ... 276
" " derangements of mentruation in, 279
" " sterility as a cause, ... 279
" " sometimes congenital, ... 280
" " " " case, . . . 281
" " rectal examination in, ... 282
" " stages of development, ... 283
" " treatment, ... 303
" " " by iodine injections, ... 304
" " " surgical, ... 312
" " " medical, ... 272
" " experience in tapping and injecting, ... 305

PAGE.
Ovarian tumors, use of gum-elastic tube in, ... 308
" " wine as an injection in, . . 308
" " iodine " " " . . 304
" " modus operandi of treatment by injection, ... 309
" " electrolysis in treatment, . . 309
" cystoma, spontaneous rupt're of, 310
" fibroids, ... 300
" cyst, rupture of, ... 310
" " permanent opening into, . . 309
Ovariotomy, ... 312
" history of, ... 312, 313, 314
" objections to, ... 314
" when should it be performed? . 315
" causes of death from, ... 316
" when it should be abandoned, . 316
" when improper, ... 318
" preparatory treatment, ... 317
" time of the year for, ... 318
" place, ... 318
" the operation for, by gastrotomy, 321
" different methods of operating, 328
" vaginal, ... 335
" treatment of the pedicle in, 325, 328
" " after operation, ... 327, 331
" " of pedicle by torsion, ... 329
" " " by tors'n of separate vessels, 329
" " " by the clamp, ... 329
" " " by ligature, ... 328
" hemorrhage after, ... 331, 332
" septicæmia or pyæmia after, . . 332
" " " " " treatment, 333
" vomiting after, ... 333
" abscess in abdominal muscles after, ... 335

PAINFUL menstruation, ... 46
Papilloma of the ovaries, ... 395
Papillary tumors of the ovaries, 301, 395
" " " uterus, . . . 395
" " " " treatment, 396
Paraplegia, ... 484
" diagnosis, ... 485
" treatment, ... 486
Paralysis, ... 484
" diagnosis, ... 485
" treatment, ... 486
" hysterical, ... 486
Parenchymatous metritis, ... 87

PAGE.
Parenchymatous metritis, Dr. Thomas on, ... 89
" " Dr. H. Bennett on, . . . 90
" " Dr. Graily Hewitt on, . 92
" " Dr. Noeggerath on, . . 92
" " Dr. Peaslee on, ... 92
" " Dr. Kammerer on, . . . 93
" " Dr. Kiwisch on, ... 93
" " Sir James Simpson on, . 95
" " Pathology of, ... 95
" " " Dr. West on, . . . 97
" " " Dr. Snow Beck on, 97
" " course and termination, 100
" " predisposing cause, . . 101
" " exciting " . . 101
" " symptoms, ... 102
" " physical signs, . . 103, 104
" " prognosis, ... 105
" " treatment, ... 106
Palliative treatment in uterine fibroma, ... 349
Palmer's uterine dilator, ... 146
" " " . . Plate VIII.
" " applicator, ... 715
Patient, efforts of, to mislead the physician as to her disease, ... 19
Pains, bearing-down, ... 220
Para-metritis, ... 113
Paquelin thermo-cautére, ... 460
Pain in the sacral region as a symptom, ... 221
" " loins as a symptom, . . . 221
Peri-metritis, ... 110, 218
" " symptoms, ... 110
" " etiology, ... 111
" " sequelæ, ... 112
" " treatment, ... 111
Pelvic cellulitis, ... 110, 113
" " etiology, ... 115
" " symptoms, ... 116
" " prognosis, ... 119
" " treatment, ... 122
" " complications of, ... 120
" " caused from lacerated cervix uteri, ... 115
Pedicle of ovarian tumors, . . . 300, 328
" clamp in ovarian tumors, . . 160
" " " " Dawson's, ... 321
" " " " Spencer Wells' original, Plate XV.

PAGE.
Pedicle clamp in ovarian tumors, new, Plate XV.
" " " " " " Thomas', Plate XV.
" " " " objections to, ... 329
" " " " advantages of, . . . 329
" treatment of, in ovariotomy, . . 328
" " by crushing, ... 328
" " " ligature, ... 325, 328
" " " the actual cautery, . . . 328
" " " torsion of separate vessels, 329
" " " transfixing it to the abdomen, ... 330
Pediculi, ... 408, 409
Peri-vaginitis phlegmonosa dissecans, 195
Pelvic hæmatoma, ... 716
" hæmatocele, ... 716
" " source of the hemorrhage in, 716
" " étiology, ... 716
" " symptoms, ... 717
" " differential diagnosis, . . . 719
" " prognosis, ... 720
" " treatment, ... 721
" abscess, ... 110, 295, 718
" " etiology, ... 115
" " symptoms, ... 116
" " prognosis, ... 119
" " treatment, ... 122, 125, 722
Peaslee's improved perineum needle, . 147
" " " " Plate VI.
Pease's needle, ... 148
Pessaries, vaginal, . . 148, 236, 593, 603
" " the use of abdominal supporters in connection with, . 149
" " elastic, ... 149
" " cup and stem, ... 149, 150
" " objections to, ... 148, 149
Perineum needles, ... 147
" lacerations of, ... 629, 631
" " diagnosis, ... 632
" " treatment, ... 633
" " operation for, ... 634
" " " time of, . . . 639
" " removal of sutures, . 640
Peri-uterine hæmatocele, ... 718
Perineorrhaphy, ... 623
Peritonitis, puerperal, ... 126
" " symptoms, . . . 129
" " etiology, ... 131
" " prognosis, . . . 132
" " complications, . 132
PAGE.
Peritonitis, puerperal, treatment, . . 133
" false, ... 131
Peritoneo-vaginal fistula, . . . 537, 538
" " " treatment of, 538
Perineo-vaginal fistula, ... 537
" " " treatment of, . 538
Phlegmasia dolens, ... 705
" " diagnosis, ... 706
" " etiology, ... 707
" " treatment, ... 708
" " post-mortem appearances, 707
Physometra, ... 295
Placenta previa, ... 204
Placental polypus, ... 354
Polypi of the urethra, ... 445
Polypi of the uterus, ... 352, 354
" " " fibrous, ... 352, 353, 354
" " " etiology, ... 354
" " " diagnosis, ... 357
" " " differential diagnosis, . . 360
" " " prognosis, ... 362
" " " treatment, ... 363
" " " operation for removal of, 364
" " " use of ecraseur in, . . . 369
" " " vascular, ... 352
" " " " treatment, ... 372
" " " placental, ... 354
" " " mucous, ... 352
" " " hydatid, . . . 352, 353, 356
" " " cystic, ... 353, 356
" " " ligature in treatment, . . 367
" " " sponge tents in " 365, 369
" " " removal by torsion, . . . 367
" " " treatment of cystic, . . . 371
" " " " " hydatid, . . 372
" " " (small) treatment, . . . 373
Polypi of the vagina, ... 406, 417
Potencies, ... 137
Poly-cysts of the ovary, ... 299
Pruritus vulvæ, ... 406, 664, 670
" " etiology, ... 407
" " diagnosis, ... 408
" " treatment, ... 409
Prolapsus uteri, ... 563, 605
" " etiology, ... 606
" " pathology, ... 606
" " symptoms, ... 613
" " differential diagnosis, . 614
" " causing throat trouble, 29
" " treatment, ... 215

PAGE.
Prolapse of the ovaries, . . 406, 417, 419
" " vagina, ... 389
" " " etiology, . . . 389
" " " diagnosis, . . 390
" " " treatment, . . 391
" " urethra, ... 445
" " bladder, ... 389
Procidentia uteri, ... 563, 605
" " etiology and pathol., . 606
" " symptoms, ... 613
" " differential diagnosis, . 614
" " treatment, ... 515
" " " surgical, . . 623
Processus vaginalis peritonæi, . . . 385
Pregnancy, false, ... 375, 498
" diseases of, ... 660, 672
" tubal, ... 440, 642
" " treatment, ... 442
" extra-uterine, . . . 642, 286
" " diagnosis, . . 643
" " prognosis, . . 644
" " treatment, . . 644
" abdominal, ... 642
" molar, ... 375
" vomiting in, ... 668, 672
" " etiology, ... 673
" " treatment, ... 674
" " shall abortion ever be induced to relieve? 675
Primary syphilis, ... 657
Pressure, effect of in uterine polypi, . 369
" atmospheric, ... 367, 556
" " in treatment of uterine displacements, 367, 556
Pseudocyesis, ... 498
Puerperal fever, ... 126
" mania, ... 688
" metritis, ... 126
" phlebitis, ... 705
" peritonitis, ... 126
" " symptoms, ... 129
" " etiology, ... 131
" " prognosis, ... 132
" " complications, ... 132
" " post-mortem appearances, 133
" " treatment, ... 133
Pudendal hemorrhage, ... 490
" " treatment, . . . 492
" hæmatocele, ... 490
" " treatment, . . . 492

PAGE.
Puberty, ... 494
" treatment of diseases of, . . 498
Pyosalpinx, ... 439
Pyæmia after ovariotomy, ... 332

QUILL suture, ... 637
" " adjusted, ... 638
" " " cut of, . . . 638

RAPID dilatation of os uteri, ... 146
Rectal examination, ... 30
" alimentation, ... 683
Rectocele, ... 389
Retracted nipples, ... 693
Retention of urine, ... 646
" " " treatment, ... 648
Recto-vaginal fistula, ... 511
" " " treatment, . 528, 531
" vesical " " . 511, 531
Rectitis as a complication of pelvic cellulitis, ... 121
Removal of sutures, ... 535
Retro-uterine hæmatocele, . . . 287, 716
" " " symptoms, ... 717
" " " differential diagnosis, 719
" " " prognosis, ... 720
" " " treatment, ... 721
Recto-vaginal hæmatocele, . . . 716, 287
" " " symptoms, ... 717
" " " differential diagnosis, 719
" " " prognosis, ... 720
" " " treatment, ... 721
Remedies homœopathic, ... 137
Reversible catheter, ... 457, 466
Removal of the ovaries for hemorrhage caused by uterine fibroids, ... 351
Retro-version of the uterus, 563, 578, 663
" " " " etiology, . . 579
" " " " diagnosis, . . 581
" " " " treatment, . . 587
" " " " in pregnancy, 589
Retro-flexion of the uterus, . . . 563, 578
" " " " etiology, . 579
" " " " diagnosis, . 581
" " " " treatment, . 587
Remedies in acute ovaritis, ... 269
" " amenorrhœa, ... 36
" " areolar hyperplasia, . . 107
" " cystitis 461, 467
" " dysmenorrhœa, ... 54

PAGE.

Remedies in hysteria, ... 462
" " leucorrhœa, ... 243
" " menorrhagia, ... 44
" " metritis, ... 84
" " pelvic cellulitis, ... 122
" " peri-metritis, ... 111
" " prolapsus uteri, ... 626
" " puerperal mania, . . . 691
" " " peritonitis, . 134
" " " phlebitis, . . 708
" " sterility, ... 261
" " stomatitis materna, . . 749
" " stone in the bladder, . . 470
" " sympathetic affections, . 487
" " threatened abortion, . . 429
" " vaginitis, ... 217
Round elastic pessary, ... 149
Rupture of the bulbs of the vestibule, 490
" spontaneous, of the uterus, from uterine fibroids, . . 351

SARCOMA of the uterus, . . . 400, 402
Salpingitis, ... 439
Sclerosis " " . . . 100, 105
Scirrhus " " 400
" " breast, ... 700
Sero-cystic tumors of the breast, . . 698
Sexual intercourse a cause of inflammation, . 60, 224, 233
" " interdicted in pregnancy, 669
Septicæmia, ... 332
Septæmia, ... 332
Sea-tangle tents, ... 230
Simple vaginal fistula, ... 537
Sims' operation for vesico-vaginal fistula, 534
Simon's " " " " 535
Sims' vaginal dilator, ... Plate VI.
" original speculum, . . . Plate III.
" " " 142
" folding " 142
" " " . . . Plate III.
" uterine elevator, ... 159
" " " . . . Plate XIV.
" enucleator, ... 347
Simpson's sound, ... 144
" " . . . . . Plate V.
" hysterotome, ... 145
" " . . . . . Plate V.
Sound, uterine, ... 22

PAGE.

Sound, uterine, Skene's, ... 144
" " " . . . . . Plate V.
" " steel, ... 144
" " " . . . . . Plate V.
" " Simpson's, ... 144
" " " . . . . Plate V.
" hard rubber, ... 144
Spontaneous rupture of the uterus in uterine fibroid, ... 346, 362
Spencer Wells' clamp, ... 160
" " " . . . . Plate XV.
" " original clamp, Plate XV.
" " trocar, ... 320
" " artery forceps, ... 322
Spasms, hysterical, ... 759
" puerperal, ... 662, 666
Speculum, Wocher's bi-valve, ... 143
" " " . Plate IV.
" Nelson's tri-valve, ... 143
" " " . Plate IV.
" Ferguson's mirror, ... 143
" " " . Plate IV.
" Sims' original, ... 142
" " " . . . Plate III.
" " folding, ... 142
" " " . . . Plate III.
" " Dawson's improved, . 142
" " " " Plate III.
Sponge tents, . . . 150, 230, 349, 350, 365
" " 602, 713
" " in treatment of fibroids, 349
" " in flexions, ... 596
" " dilator, Emmet's, . . . 151
" " " " Plate IX.
" bath, ... 745
Sphygmographs, ... 161
Steps to be taken in making a vaginal examination, ... 21
Strangury, ... 646
" etiology, ... 646
" diagnosis, ... 647
" prognosis, ... 647
" treatment, ... 648
Stem pessaries, objections to, ... 593
Straight needle forceps, ... 526
" lithotomy forceps, . . Plate VIII.
Stone in the bladder, ... 462
" " " symptoms, ... 463
" " " diagnosis, ... 464
" " " treatment, ... 464

PAGE.
Stone in the bladder, operation for, . 467
" " " " after treatment, 470
" " " remedies for, ... 470
" " " removal by lithotrity, 465
" " " " " lithectasy, 465
Stenosis of the uterus, ... 452
" " cervix uteri, . . 452, 256
" " " " treatment, 453
Sterility, ... 249
" as a result of pelvic cellulitis, 120
" diagnosis, ... 255, 358
" treatment, ... 257
Stomatitis materna, ... 747
" " etiology, ... 747
" " symptoms, . . . 747
" " diagnosis, ... 747
" " treatment, . . . 748
Suppression of the urine, ... 646
" " menstruation, . . 268
Sub-acute inflammation of the uterus, ... 62, 64
Suppositories, uterine, medicated, 713, 229
Suspended animation. 756
Suture needles, ... Plate XIII.
Supports of the uterus, ... 559.
Supporters, abdominal, . 156, 157, 557, 558
" " . . . . Plate XII.
" " Eaton's, ... 157
" " " . . Plate XII.
" " Old London, . . . 158
" " " " Plate XII.
" " Silk elastic, ... 158
" " " " Plate XII.
" " Babcock's uterine, 149
" " M'Intosh's " 150
Sub-acute ovaritis, ... 266
Subserous fibroids of the uterus, . . . 343
Submucous " " " . . . 343
Sub-involution of the uterus, 219, 709, 710
" " " " symptoms, . 710
" " " " etiology, . . 711
" " " " results . . 709
" " " " treatment, . 712
Success of iodine injections in ovarian cystoma, ... 304
Swing bed, ... 338
Symptoms of uterine disease, ... 21
Syphilis in women, ... 655
" secondary, ... 655
" tertiary, ... 655

PAGE.
Syphilis, how contracted, ... 655
" symptoms and diagnosis, . . 657
" treatment, ... 658
Syphilitic ulceration of the vagina, . 629
Syringe for injecting fibroids, ... 171
Sympathetic affections, ... 472, 487
" " treatment, 477, 486
" " electricity in, . 479

TAPPING, ... 739, 743
Tampon, vaginal, ... 350, 363
Tenesmus, uterine, ... 220
Tents, sponge, 150, 230, 349, 365, 602, 713
" sea-tangle, ... 230
" cotton, ... 229
Tenaculum, Bozeman's, . . . Plate XIII.
Tetanus, ... 759
Thomas' clamp, ... Plate XV.
Thrombus, ... 490, 716, 722, 726
Tiemann & Co.'s aspirator, . . Plate IX.
Tolerance of the system to abnormal conditions, ... 479
Trocar, Spencer Wells', ... 320
" long curved, ... 125
" " " uterine, ... 710
Treatment of acute metritis, ... 80
Tri-valve speculum, ... Plate IV.
Treatment of ovarian cysts with iodine injections, ... 304
" uterine fibroids (submucous) with sponge tents, . . . 349
" palliative of uterine polypi, 349
Triturations of remedies, ... 138
Transmissibility of syphilis, ... 655
Tumors of the breast, ... 697
" " " non-malignant, 699
" " " malignant, 692, 700
" " " cancerous, 692. 700
" " " fatty, ... 700
" " labia, ... 726
" " uterus, ... 352
" " " fibrous, ... 343
" " " polypoid, . . . 352
" " vagina, ... 406, 417
" ovarian, ... 275
Tubal gestation, ... 440, 643
" " pregnancy, . . . 440, 643
" " operation, ... 443
Tubes, Fallopian, diseases of, ... 439
" " cancer of, ... 443

PAGE.
Tubes, Fallopian, displacements of, . 443
Tuberculosis of the uterus, ... 403
" " vagina, ... 451
" " Fallopian tubes, . 443
Tuberculous ulceration of vagina, . . 629
Tumor forceps, ... Plate XI.
Tympanites, ... 487

ULCERATION of the vagina, ... 629
" " " cancerous, . 629
" " " syphilitic, . 629
" " urethra, ... 449
" " os uteri, ... 179
" " cervix uteri, . . 179
" " " " causes of, 180
" " " " diagnosis, 183
" " " " treatment, 185
Urine, suppression of, ... 646
" retention of, ... 646
Urethritis, ... 445
Urethro-vaginal fistula, ... 511
Ureto-vaginal fistula, ... 511
Uræmia, ... 284, 662
Urethra, diseases of, ... 445
" inflammation of, ... 445
" prolapse of, ... 445
" ulceration of, ... 445
" fissure of, ... 445
" caruncles of, ... 445
" polypi of, ... 445
Urinary calculi, ... 462
" " caused from spinal injury, 462
Urethral speculum bi-valve, ... 446
Uterus, inflammation of, ... 77, 126
" neuralgia of, ... 736
" stenosis of, ... 452
" " treatment, ... 453
" catarrh of, ... 380
" " " etiology, ... 381
" " " diagnosis, ... 381
" " " treatment, ... 383
" cancer of, ... 167, 400
" malformation, ... 750, 754
" tuberculosis of, ... 403
" abscess in, ... 241
" sub-involution of, ... 219, 709
" " " " symptoms, . . 710
" " " " etiology, . . . 711
" " " " effects of, . . 709
" " " " treatment, . . 712

PAGE.
Uterus, hypertrophy of, . . 162, 219, 709
" bilocularis, ... 755
" irritable, ... 93, 736
" hyper-involution of, . 255, 259, 750
" hydatids of, ... 356
" hydatids of, treatment, ... 372
" supports of, ... 539
" normal position of, ... 554
" " " " Plates II and III.
" inversion of, ... 563
" " " " etiology, ... 565
" " " " diagnosis, ... 567
" " " " treatment, ... 569
" " " " " of chronic cases, 571
" " of operation for, ... 572
" " " Simpson's operation for, 575
" " " Thomas' " " 575
" " " Barnes' " " 575
" " " Watts' " " 575
" " " White's " " 573
" " " treatment by amputation, 576
" " " spontaneous reduction, . 576
" " " anomalous cases of, . . 577
" displacements of, ... 552, 663
" " " symptoms, . . 561
" " " etiology, . . . 561
" " " treatment, . . . 562
" extirpation of, ... 727, 346
" " " experience in, . . 729
" ablation of, ... 727
" " " cases of, ... 729
" prolapse of, ... 563, 605
" " " treatment, ... 615
" procidentia of, ... 563, 605
" " " treatment, . . . 615
" retro-flexion of, ... 563, 605
" " " " etiology, ... 579
" " " " diagnosis, . . . 581
" " " " treatment, . . . 587
" retro-version of, . . . 563, 578, 663
" " " " etiology, ... 579
" " " " diagnosis, . . . 581
" " " " treatment, . . . 587
" lateral flexions, ... 563, 603
" ante-version of, ... 563, 598
" " " " etiology and diagnosis, 599
" " " " treatment, ... 600
" ante-flexion of, ... 563, 598
" " " " etiology and diagnosis, 599
" " " " treatment, ... 600

PAGE.
Uterus, elevation of, ... 563, 775
" " " . . . . Plate XXVIII.
" papillary tumors of, ... 395
" carcinoma of, ... 292, 400
" fibro-cyst of, ... 302
" tumors of, ... 292, 302, 342, 352
" polypi of, ... 352
" scirrhus of, ... 400
" encephaloid of, ... 400
" sarcoma of, ... 400
" cauliflower excrescence of, . . . 400
" hemorrhage from, 201, 222, 254, 500
Uterine organs, front view, . . . Plate I.
" " side view, . . . Plate II.
" trocar, ... 510
" electrode, ... 714
" applicators, ... 715
" repositor, White's, ... 573
" dressing forceps, ... 184
" " " . . . . Plate V.
" sounds, ... 22
" " . . . . . Plate V.
" diseases, symptoms of, ... 21
" dilator, ... 146
" " . . . . . Plate VIII.
" elevator, ... Plate XIV.
" " Sims', ... 159
" " " . . . Plate XIV.
" " Elliott's, ... 159
" " " . . Plate XIV.
" tenesmus, ... 220
" colic, ... 586
" myoma, ... 342
" fibroids, ... 302
" stem pessary objectionable, . 593
" cervix, lacerations of, ... 539
" injections, caution against, . . 216
" polypi, ... 352
" " etiology, ... 354
" " morbid anatomy, . . . 354
" " diagnosis, ... 357
" " differential diagnosis, . 360
" " treatment, ... 363
" " sponge tents in treatm't, 349
" " operation for removal of, 364
" hydatids, ... 352, 356
" moles, ... 375
" " causes of, ... 376
" " treatment, ... 376
" fibroma, ... 342

PAGE.
Uterine fibroids treated by ergotine injections, ... 348
" fibro-cyst, ... 291
" polypi, vascular, ... 352
" " " treatment of, . . 372
" " mucous, ... 352
" " " treatment, . . . 372
" hemorrhage, . . 201, 222, 254, 500

VAGINAL examination, ... 22
" washes, . . 233, 603, 744, 746
" ovariotomy, ... 335
" pessaries, . 148, 236, 593, 603
" fistulæ, ... 511
" simple, ... 537
blind, ... 537
" " other varieties, . . 537
Vaginitis, ... 186, 219, 254
" treatment of, ... 189
" remedies in, ... 192
" diphtheritic, ... 194
Vagina, inflammation of, ... 186
" cysts of, ... 406, 414
" " " pathol. anat., ... 414
" " " etiology, ... 414
" " " symptoms, ... 415
" " " diagnosis, ... 415
" " " treatment, ... 415
" fibroids of, ... 406, 417
" polypi of, ... 406, 417
" catarrh of the, ... 186, 380
" prolapse of, ... 389, 406
" hernia of, ... 404
" atresia of, ... 502
" " " operation for, . . 507
" lacerations of, ... 629
" cancerous ulceration of, . . . 629
" syphilitic " " 629, 655
" tuberculosis of, ... 451
" fissures of, ... 630
" fistula of, ... 511
Vaginal tampons, ... 350, 363
Vascular polypi of the uterus, . 352, 372
Varieties of uterine fibroids, ... 343
Vaginismus, ... 162, 172, 254
" symptoms, ... 174
" etiology, ... 175
" treatment, ... 176
Vegetations of the endometrium, 352, 353
" " 355

PAGE.
Venery, excessive, a cause of sterility, 255
Vesico-vaginal fistula, ... 511, 520
" " " operations for, . 523
Vesico-cervical fistula, ... 511, 531
Vesico-uterine fistula, ... 531
Vesico-vaginal fistula, artificial, for relief of chronic cystitis, ... 458
Virgin os uteri, ... 26
" examination of, ... 24
Vicarious menstruation, . . . 34, 56, 498
" " treatment of, . 58
Vomiting in pregnancy, ... 668, 672
" " " diagnosis, . . 674
" " " treatment, . . 674
" after ovariotomy, ... 333
" " " treatment, . 334
Vulvæ, pruritus of, . . 406, 409, 664, 670
" neuromata of, ... 739
Vulsellum forceps, ... Plate X.

WASHES, vaginal, ... 233, 603
Weed in the breast, ... 695
Wells' clamps, ... 160
" " . . . . . Plate XV.

PAGE.
White's hysterotome, ... 145
" hysterotome, ... Plate V.
" treatment of inversion, . . . 573
Watts' " " " . . . 575
Whites (leucorrhœa), ... 240
Wire holder and twister, Eaton's, . . 146
" " " " " Plate VI.
Wocher's bi-valve speculum, ... 143
" " " . . Plate IV.
Womb, inflammation of, ... 77, 126
" " " chronic, . . 62, 70
" tumors of, ... 343
" symptoms of disease of, . . . 31
" (see Uterus.)

YOUNG GIRLS, gonorrhœa in, . . . 653
" " vaginitis in, ... 191
" " " treatment of, . . 191
" " menstruation in, ... 31
" " atresia of cervix uteri in, 505
" " time and symptoms of puberty in, ... 494
" " treatment of diseases peculiar to, ... 498

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